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ABSTRACT

One of the issues in bilingual education is whether programs designed to provide immigrant children with special aid in learning English are adequate. To provide factual data this study reports on a survey conducted on all classroom and home teachers in the public schools of New York City. Each teacher is asked to list all pupils in the class who have moderate or severe difficulty speaking English and then to indicate the extent of each pupil's participation in specialized programs designed either to improve English language skills or to provide instruction in the pupil's native language. Although the survey inquires about all pupils in the schools who have difficulty with English, the present report is restricted to those of Spanish heritage. Three issues are considered: (1) How many Hispanic pupils have difficulty with English? (2) How many of these are receiving specialized remedial services or instruction in Spanish? (3) How many of these are in contact with school personnel fluent in Spanish? The data presented in this report shows both a substantial need for special services for Hispanic pupils with English language difficulty and a substantial effort on the part of the schools to meet that need. Whether these efforts are sufficient remains a central pending issues. (Author/AM)

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PRELIMINARY REPORT ON A SURVEY OF EDUCATIONAL SERVICES FOR HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY, CONDUCTED IN THE NEW YORK CITY SCHOOLS, MAY 1974

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NATIONAL INSTITUTE OF EDUCATION

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PREFACE

In conjunction with a pending Federal suit, Aspira of New York, Inc., et al., vs. Board of Education of the City of New York, et al., 72 Civ. 4002 (S.D.N.Y.), the hearing judge, Hon. Marvin E. Frankel, ordered in a memorandum dated April 30, 1974, that:

> Defendants will make or commission a survey to determine with all feasible precision the number and locations of affected children, the varieties and scope of existing programs and the availabilities of instructional personnel. Plaintiffs and their counsel will participate in formulating the scope and nature of the survey. The court will resolve disputes over this as well as other steps to be taken. The survey will be completed, and its results made available to plaintiffs and the court by July 1, 1974. (p. 5)

In response to this order, the Board of Education commissioned the Center for Policy Research to consult on the design of a survey, which was then carried out in the schools by the Board of Education; to prepare a report presenting the results of the survey; and to prepare various tabulations requested by the defendants or the plaintiffs. The present document represents our first report on the results of the survey. This report provides an estimate of the number of Hispanic pupils with English language difficulty in the City and in each Community School District, and an estimate of the availability of special program services and personnel for these pupils in the City. The report also contains five Appendices. Appendix I describes the data collection and processing procedures. Appendix II contains an analysis of

allegations that pupils with English language difficulty were under-counted in the May survey. Appendix III contains a set of tables on hours of participation in various services, which was too large to be included in the body of the text. Appendix IV, which is separately bound, contains tables presenting data for each Community School District. Finally, Appendix V contains various documents pertinent to the execution of the survey.

The present report is based on data drawn from two sources: (1) the language censuses conducted each October by the Board of Education, for the period 1970-1973; (2) the recently completed survey ordered by Judge Frankel. Because of the extremely limited time allowed to execute the survey and analyze the resulting data, this report must be considered preliminary. The tabulations presented here are based on an unedited data tape for the entire population from which data were received. Although, for reasons elaborated in Appendix I, we had planned to base this report on an edited sample of data, we did not receive a functioning computer tape containing these data until Saturday afternoon, June 29. In view of these considerations, we plan to submit a second report on July 15. This report will present a comparison of data based on the unedited population tape with data based on the edited sample tape. It will also present the results of a special validity check procedure undertaken to assess the accuracy of data reported by teachers on the extent of pupil participation in special program services. The July 15 report will also include various tabulations requested by the plaintiffs, on a District by District basis and, if the data warrant, on a school by school basis.

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INTRODUCTION

New York has been a polyglot city for well over 100 years and as each wave of immigrants from non-English speaking homelands has reached our shores they have looked to the schools to provide their children with a sufficient command of English to secure their place in the life of the city. The relatively recent immigration of Puerto Ricans and others of Spanish heritage is but the latest manifestation of this historical process. And, like earlier groups, they too look to the schools to provide their children with English language skills which they themselves often do not possess.

Like other groups, their children often begin school knowing little English. Fortunately, and in contrast to earlier generations of immigrants, the legitimacy of the right of these children to special aid in learning English is widely accepted by those who run the school system. Special programs are available in many schools, although until now no one has known exactly how many programs existed and how many children were being served. One of the issues of contention in Aspiva vs. Board of Education is whether these programs are adequate. To provide the factual data upon which this issue must turn, the Board of Education in May of this year conducted a survey of all class room and home room teachers in the public schools of the city. Each teacher was asked to list all pupils in the class who had moderate or severe difficulty speaking English and then to indicate the extent of each pupil's participation in specialized programs designed either to improve English language skills or to provide instruction in the pupil's native language.

In addition, the teacher was asked to indicate which personnel with whom the pupil had contact were fluent in his native language. The questionnaire and overall design of the survey were the product of the joint effort of members of the Chancellor's staff, counsel for the plaintiffs, and the authors of this report, who served as consultants to the Board of Education. This somewhat arduous process resulted in the material described in detail in Appendix I.[1]

Although the survey inquired about all pupils in the schools who have difficulty with English, the present report is restricted to those of Hispanic heritage. Specifically, this includes Puerto Rican pupils and pupils who are "Spanish speaking but not Puerto Rican."[2] Data in this report will be presented for the combined groups, designated "Total Hispanic." A more detailed breakdown will be made at some future date. The report will consider three issues: (1) How many Hispanic pupils have difficulty with English; (2) How many of these pupils are receiving specialized remedial services or instruction in Spanish; and (3) How many of these pupils are in contact with school personnel fluent in Spanish. The first topic relies heavily upon data collected in earlier surveys while the latter two topics rely exclusively upon data from the current survey, which make analysis of these issues possible for the first time.

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[1]We are reminded of the description of a camel as "a horse designed by a committee"; this survey may be viewed in an analogous way.

[2]Both the language group and language competence classifications used in the present survey are identical to those used in the annual language census conducted by the Board of Education. Although in our judgment these definitions are far from ideal, their use enables comparisons with earlier data which otherwise would not be possible. Appendix I contains a more detailed discussion of the wording of these items.

HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

To determine the extent of the need for remedial and bilingual services, it is necessary to know not only how many pupils currently have difficulty speaking English, but how many pupils with English language difficulty can be expected to be enrolled in the schools in coming years. The best way to get an estimate of future trends is to analyze past trends. Thus, the first topic in this section will be an analysis of the extent of English language difficulty among Hispanic pupils since 1970. Second, because under decentralization the schools are administered by Community School Districts which have independent budgetary and policy making authority, it is necessary to know in which districts pupils with English language difficulty are concentrated. Third, in designing effective remedies, it is necessary to know in what grades the need is greatest. We consider these topics one at a time.

Trends in the extent of English language difficulty. Of approximately 1.1 million pupils attending public schools in the City of New York each year since 1970, about a quarter of a million were of Puerto Rican origin and another 40,000 from other Spanish speaking groups. Of these, about a third of the Puerto Ricans and about half of the other Hispanics had at least some difficulty speaking English, as reported by their teachers.

Table 1 provides the details. The table shows a stable pattern of enrollment of both Puerto Rican and other Hispanic pupils over the past four years, together with a basically stable although slightly improving pattern of English language competence. Over 20 per cent of Puerto Rican pupils were judged at the beginning of

Table 1 - Per cent of Hispanic pupils with English language difficulty in New York City Schools, 1970-1974

	Per cent with moderate difficulty (Cat. I)	Per cent with severe difficulty (Cat. II)	Total per cent with difficulty (Cats. I & II)	Number of Pupils
Total Hispanic				
October, 1970	27	15	42	282,960
October, 1971	23	12	35	301,583
October, 1972	23	11	34	298,197
October, 1973	22	11	33	297,008
May, 1974[a]	15	8	25[b]	261,099
Puerto Rican				
October, 1970	26	13	39	245,082
October, 1971	22	10	32	262,265
October, 1972	22	9	31	257,752
October, 1973	21	9	30	256,492
May, 1974[a]	14	6	21[b]	225,544
Other Hispanic				
October, 1970	34	26	60	37,878
October, 1971	28	23	51	39,318
October, 1972	29	18	47	40,445
October, 1973	28	21	49	40,516
May, 1974[a]	23	19	44[b]	36,379

[a] Estimated from preliminary unedited data tape; about 10 high schools and a number of special schools are excluded because data were returned too late for inclusion. All figures for May, 1974 were computed from this tape. See Appendix I for details.

[b] Includes those for which language difficulty code missing.

the school year to have moderate difficulty speaking English and about 10 per cent to have severe difficulty. For other Hispanics, the comparable percentages were 30 and 20. Despite the slight tendency for the percentage of pupils with English language difficulty to decline over the years, the best estimate of the situation to be expected for the next several years is that it will remain essentially what it is now.

The reader will note that the data for May, 1974 appear to indicate a substantial improvement of English language competence between October and May of the past school year. Be that as it may, these data should not be taken as indicating a trend which will continue to hold next year. Rather, as was just stated above, the best guess is that the data for October, 1974, will look very much like the data for October, 1973. There are two reasons why the May data exhibit a lower percentage of pupils with English language difficulty than the data for the previous October. First, a certain amount of improvement in English language competence does occur during the course of the school year, after which high school seniors graduate and are replaced by kindergarteners and first graders with a much higher level of English disability. Second, there was apparently some under-reporting of pupils with English language difficulty especially those with moderate difficulty, in the May survey; thus, the May figures are in fact somewhat too low. Both of these points are discussed in detail in Appendix II.

Variations in extent of English language difficulty by district. Not surprisingly, the extent to which Hispanic pupils are deficient in English varies substantially among Community School Districts.

In October, 1973, for example, the percentage of Puerto Rican pupils who experienced severe difficulty speaking English ranged from one per cent in District 26 to 15 per cent in District 7, while the percentage experiencing severe or moderate difficulty ranged from 10 per cent in District 26 to 41 per cent in District 7 and District 13 (the data are shown in Table 2). A comparable degree of variability across districts in the English language competence of other Hispanic pupils can be seen in Table 3.

These differences are extremely stable over time. Tables 2 and 3 show the per cent of Puerto Rican and other Hispanic pupils, respectively, who have severe difficulty with English and the per cent who have either severe or moderate difficulty for each year since 1970. Inspecting the tables, it is evident that in most districts the level of English language competence of Hispanic pupils has remained essentially stable since 1970. Although some districts seem to be improving the level of English language ability of their pupils, the improvement is for the most part slight and thus the most reasonable expectation is that for the next few years essentially the same distribution of English language competence will continue to hold.

The pattern of stability over time in each district is further confirmed by the data in Tables 4 and 5, which give the number of Puerto Rican and other Hispanic pupils, respectively, in each district for each year since 1970. These numbers are extraordinarily similar from year to year, suggesting that neighborhoods have remained stable in their ethnic distributions and hence that we can continue to expect similar numbers of Hispanic pupils in each of these districts for the next several years.

Table 2 - Per cent of Puerto Ricans in each District with severe English language difficulty (Category II) and per cent with any difficulty (Categorys I & II), 1970-1974

District	Per cent with severe difficulty					Per cent with any difficulty				
	Oct. 1970	Oct. 1971	Oct. 1972	Oct. 1973	May 1974	Oct. 1970	Oct. 1971	Oct. 1972	Oct. 1973	May 1974
City Total	13	10	9	9	6	39	32	31	30	21
1	16	13	10	12	6	44	39	38	36	22
2	13	10	9	9	6	42	34	34	34	23
3	13	11	9	10	7	42	37	35	35	28
4	14	12	8	11	8	46	38	34	32	28
5	7	8	6	9	6	34	31	28	36	21
6	13	11	10	10	6	45	35	39	33	20
7	16	14	13	15	10	44	41	41	41	31
8	12	10	10	10	6	33	30	28	28	18
9	14	11	9	10	7	39	29	27	29	18
10	11	6	11	11	5	39	21	35	30	18
11	5	4	4	3	2	29	23	23	19	20
12	20	15	14	14	10	44	39	38	37	29
13	12	12	10	12	10	40	38	40	41	33
14	17	13	13	12	7	49	42	44	39	23
15	12	10	9	7	4	39	31	32	27	18
16	14	12	13	7	5	40	37	41	25	21
17	9	8	8	8	5	28	25	25	23	17
18	6	6	4	5	3	27	20	23	17	12
19	14	11	10	9	7	40	32	32	28	28
20	13	12	11	10	9	45	40	36	30	28
21	13	11	9	7	5	42	37	38	32	26
22	8	5	6	5	4	38	24	28	29	22
23	14	12	10	11	15	41	33	28	34	39
24	13	11	7	10	4	50	40	34	34	22
25	10	6	7	7	5	34	25	28	29	25
26	1	3	4	1	1	14	12	10	10	12
27	7	6	5	6	3	32	19	23	21	19
28	11	10	10	9	5	36	29	31	32	24
29	6	4	3	5	3	26	22	24	24	22
30	11	9	10	10	4	37	29	32	33	18
31	5	4	5	4	1	26	19	22	22	19
32	-	-	-	14[a]	8	-	-	-	39[a]	27
High Schools	7	5	5	6	3	27	22	22	25	9

[a] District 32 was created in 1973 by partitioning District 16. Thus to make comparisons with earlier years, District 16 and 32 should be combined.

Table 3 - Per cent of other Hispanic pupils in each district with severe English language difficulty (Category II) and per cent with any difficulty (Categorys I & II), 1970-1974

District	Per cent with severe difficulty					Per cent with any difficulty				
	Oct. 1970	Oct. 1971	Oct. 1972	Oct. 1973	May 1974	Oct. 1970	Oct. 1971	Oct. 1972	Oct. 1973	May 1974
City Total	26	23	18	21	19	60	51	47	49	44
1	35	34	31	30	33	67	61	62	68	54
2	37	32	23	24	24	64	61	55	57	53
3	36	35	29	30	39	71	68	62	61	70
4	35	23	12	29	17	61	49	76	50	42
5	29	20	14	24	17	66	47	52	53	45
6	31	28	23	27	31	64	59	57	56	62
7	37	35	30	43	28	60	65	60	68	49
8	27	23	16	24	17	52	43	35	46	35
9	28	20	21	32	26	58	39	46	53	47
10	24	22	16	16	14	50	48	41	41	32
11	13	9	5	12	7	42	30	28	30	26
12	32	28	23	23	21	58	52	50	47	40
13	26	20	25	26	20	61	45	50	59	45
14	32	31	24	31	25	58	64	63	63	51
15	28	20	20	17	13	51	48	46	43	37
16	26	20	19	6	9	57	43	49	22	26
17	16	12	15	12	11	42	37	37	43	28
18	20	5	5	11	15	53	34	25	33	34
19	26	20	19	19	23	71	45	44	51	52
20	22	18	14	19	15	55	45	40	41	44
21	13	13	9	13	19	30	45	39	44	42
22	18	24	13	15	18	59	51	43	43	45
23	21	25	25	26	26	56	50	43	49	57
24	31	26	21	18	12	68	55	54	49	41
25	23	15	13	12	13	60	50	46	41	36
26	19	10	8	11	7	55	40	37	30	47
27	18	24	7	10	14	55	40	31	37	41
28	11	17	15	13	10	79	42	41	39	29
29	18	16	13	11	10	53	51	43	37	38
30	24	21	18	18	13	57	49	47	44	36
31	17	15	18	9	9	40	38	44	31	28
32	-	-	-	27	21	-	-	-	54	42
High Schools	19	18	13	15	15	50	44	37	44	39

Table 4 - Number of Puerto Rican Pupils in each district, 1970-1974, and per cent Puerto Rican 1973-1974

District	Number of Puerto Rican pupils					Per cent Puerto Rican	
	October 1970	October 1971	October 1972	October 1973	May 1974	October 1973	May 1974
City Total	245,082	262,265	257,752	256,492	225,544	23	22
1	12,544	12,320	11,836	11,427	10,190	70	68
2	5,383	5,953	5,839	5,576	5,017	26	24
3	5,654	4,707	4,537	4,166	3,962	22	21
4	13,467	12,335	10,895	10,220	9,762	62	62
5	2,735	2,856	2,388	2,265	1,823	11	10
6	3,382	3,668	3,363	3,579	3,314	20	19
7	18,942	19,206	16,928	16,482	16,082	63	62
8	13,729	14,886	13,846	13,651	12,913	44	42
9	14,203	16,019	16,597	16,339	14,777	44	42
10	6,274	11,693	8,429	9,881	9,629	34	33
11	2,785	3,529	3,872	4,079	4,046	15	15
12	19,317	19,435	17,439	16,240	14,737	55	53
13	5,017	4,966	4,484	4,045	3,834	18	17
14	18,110	17,607	16,940	16,387	15,427	61	60
15	12,188	12,648	12,653	12,572	11,903	50	49
16	11,348	11,993	11,784	2,390	2,135	13	12
17	2,862	2,949	2,803	2,847	2,504	11	10
18	1,221	1,258	1,350	1,516	1,224	8	6
19	11,799	12,935	12,045	9,968	9,595	34	33
20	2,689	3,092	3,273	3,634	3,612	14	14
21	2,486	2,700	2,766	3,040	2,461	12	10
22	377	623	688	977	882	4	3
23	5,563	5,284	4,521	3,910	3,590	19	19
24	816	820	1,661	1,299	1,222	5	5
25	376	570	605	620	402	2	2
26	107	183	225	261	153	1	1
27	1,012	1,469	1,766	2,060	1,884	7	7
28	728	981	1,144	1,383	1,299	5	5
29	589	854	916	1,125	811	4	3
30	1,390	1,503	1,668	1,816	1,762	8	8
31	830	1,068	1,222	1,280	1,362	3	3
32	-	-	-	11,333	10,920	53	54
High Schools	45,648	53,691	56,614	57,277	39,613	19	17

[a] District 32 was created in 1973 by partitioning District 16. Thus, to make comparisons with earlier years, District 16 and 32 should be combined.

Table 5 - Number of other Hispanic pupils in each district, 1970-1974, and per cent other Hispanic 1973-1974

District	Number of other Hispanic pupils					Per cent other Hispanic	
	October 1970	October 1971	October 1972	October 1973	May 1974	October 1973	May 1974
City total	37,878	39,318	40,445	40,516	36,379	4	4
1	426	470	548	542	578	3	4
2	827	979	999	897	970	4	5
3	2,228	2,249	2,160	2,239	1,968	12	11
4	216	221	291	206	179	1	1
5	756	542	463	456	487	2	3
6	5,703	5,866	6,192	6,126	4,150	34	24
7	765	650	705	821	825	3	3
8	734	1,089	1,179	787	936	3	3
9	996	1,563	1,118	1,334	1,460	4	4
10	590	644	732	849	798	3	3
11	204	283	295	288	269	1	1
12	949	975	927	813	867	3	3
13	285	381	278	321	363	1	2
14	796	659	888	800	1,013	3	4
15	832	920	808	937	822	4	3
16	527	641	539	67	108	0	1
17	667	731	736	697	615	3	2
18	242	250	141	166	161	1	1
19	1,332	718	783	565	797	2	3
20	429	434	448	453	356	2	1
21	413	275	264	301	183	1	1
22	235	252	247	236	185	1	1
23	236	241	126	156	182	1	1
24	3,474	3,930	4,081	4,249	4,145	17	17
25	755	822	817	960	757	4	3
26	112	105	142	118	83	1	0
27	295	303	411	389	442	1	2
28	2,236	1,309	1,318	1,471	1,782	6	7
29	374	472	534	529	401	2	2
30	2,445	2,717	2,867	2,734	2,796	12	12
31	216	224	216	249	210	1	1
32	-	-	-	554	632	3	3
High Schools	7,497	8,444	8,942	9,061	6,718	3	3

Tables 4 and 5 also show the percentage of all pupils in each district who are Puerto Rican or of other Hispanic origin, for the past school year. The districts range from two per cent to 70 per cent Hispanic. Now, it might be supposed that those districts which are heavily Hispanic would tend to have the highest percentages of Hispanic pupils deficient in English, both because these are likely to be areas of first settlement of recent immigrants and because the concentration of Spanish speaking pupils would result in greater reliance on Spanish and less on English as a medium of communication with other pupils, thus retarding rapid mastery of English.

We can test this hypothesis by grouping districts on the basis of the percentage of pupils who are Hispanic and comparing the percentages of Hispanic pupils in each category who have difficulty with English. Table 6 presents these data. Interestingly, they do not provide much support for the hypothesis. There is a slight tendency for pupils in districts with very small proportions Hispanic to have less difficulty with English than pupils in other districts, but beyond this the extent of English language difficulty does not systematically increase as the percentage Hispanic increases. Whether this is because districts are not fine enough units to reveal this sort of contextual effect, which might operate at the level of the individual school, or whether there really is no effect of the linguistic context in which pupils are enmeshed is unclear.

Variations in extent of English language difficulty by grade. Puerto Rican children learn English in school, and they learn it very quickly after starting school. This is strikingly evident in the figures presented in Table 7. Nearly half of all pupils enrolled

Table 6 - Per cent of Hispanic pupils with English language difficulty by per cent Hispanic in district, October, 1973

Per cent Hispanic in District	Per cent with severe difficulty (Category II)	Per cent with any difficulty (Category I & II)	Number of Hispanic pupils	Number of districts
Less than 10	6	26	10,486	7
10-19	9	31	27,737	8
20-29	15	41	14,164	3
30-39	12	34	34,141	4
40-49	12	31	42,537	3
50-59	14	37	52,154	4
60 or more	14	40	46,459	3

Table 7 - Per cent of Puerto Rican pupils with English language difficulty by grade, October, 1973 and May, 1974

Grade	Per cent with severe difficulty (Cat. II only)		Per cent with any difficulty (Cats. I & II)		Number of Pupils	
	October	May	October	May	October	May
Pre-kindergarten	44	31	72	60	1,527	1,361
Kindergarten	32	21	62	48	16,452	13,227
1	21	14	52	41	21,925	20,113
2	12	8	40	30	22,170	20,358
3	7	6	33	25	21,972	19,923
4	6	4	28	20	21,888	20,303
5	5	4	23	18	21,100	19,484
6	5	3	21	14	19,261	18,336[a]
7	5	4	18	12	19,522	17,847[b]
8	5	3	19	12	17,958	16,814
9	6	3	23	11	22,716	17,332
10	7	3	27	11	20,836	12,488
11	5	2	22	7	13,085	8,667
12	2	1	18	4	8,514	7,718

[a] Includes 6-7 classes, N = 704

[b] Includes 7-8 classes, N = 544

in pre-kindergarten classes have severe difficulty with English and another quarter have moderate difficulty, as indicated by the October figures. These proportions drop about 10 per cent per year until the third grade, when they begin to level off. Since we have seen above that the pattern of enrollment of Puerto Rican children in the city schools is stable over time, it is reasonable to treat these data as if they represented the experience of a single cohort of children moving through the school grades, at least up to the ninth grade. Viewed this way, it is clear that most learning of English takes place before the third grade. After that, the extent of severe difficulty remains essentially constant at about five per cent, while the percentage with no English difficulty continues to improve slightly. It may be that the five per cent with continued severe difficulty represent a small but steady influx of new arrivals from Puerto Rico, but we have no data on migration patterns with which to test this possibility. Considering that the Puerto Rican enrollment in the schools increases noticeably between the eighth and ninth grades, the slight increase in the per cent with difficulty does appear to represent the consequences of immigration; perhaps a certain number of parents in Puerto Rico send their children to New York to attend high school. Again, however, the lack of data makes it impossible to investigate this question.

It is of interest that the extent of severe English language disability in May is very similar to the extent of disability in the next higher grade in October for all those grades where substantial learning takes place, as implied by the differences between

successive grades. It is not unreasonable to expect most English language learning to occur during the school year, with little or no learning (or even some backsliding) during the summer. Further, kindergarten and first grade classes include substantial numbers of pupils entering school for the first time, as is clear from the sharp increase in enrollments in each of these grades. Thus, the percentage of pupils with severe English language difficulty in these classes in October might well be expected to be even greater than the percentage in the immediately lower grade in the previous May. Thus, we regard these data as illustrating the course of English language learning as Puerto Rican children move through school.

The data showing the percentage of pupils with any difficulty (the third and fourth columns of Table 7) are another matter. Although essentially the same grade by grade learning pattern appears to operate for both severe and moderate English language difficulty, in the latter case the most reasonable inference is that the May data reflect a certain amount of under-reporting, in addition to learning during the school year. That is, the special circumstances under which the May survey was conducted resulted in the classification of a certain percentage of pupils as having no English language difficulty who ordinarily would have been classified as having moderate difficulty (our best guess is about three per cent of the total were mis-classified). A detailed analysis of under-representation of the extent of English language difficulty is provided in Appendix II. Hence, this issue will not be considered further here.

For pupils of other Hispanic origin, the grade by grade pattern of improvement in English language competence, although similar in broad outline to that for Puerto Ricans, is much less clear cut (see Table 8). In particular, substantial numbers of other Hispanic pupils continue to have severe difficulty with English throughout all grades. Whether this is due to immigration patterns which bring non-English speaking pupils into the schools at all grade levels, the absence of English language reenforcement at home due to the lack of English competence of parents, or some other factor, cannot be determined with the data at hand.

Summary

From the data thus far presented, we can conclude that English language disability among pupils of Hispanic origin is substantial, encompassing about a third of Puerto Rican pupils and about half of those from other Hispanic groups; that the level of severe difficulty is somewhat lower, encompassing about 10 per cent of Puerto Rican and 20 per cent of other Hispanic pupils; that the pattern of disability is extremely stable over time, both throughout the City and within each Community School District; and that the greatest disability is concentrated in the earliest years of school, in pre-kindergarten, kindergarten, and grades one through three. We have also shown that although there is substantial variability from one district to another in the extent of English language disability, there is no particular tendency for disability to be greatest in heavily Hispanic districts. This suggests that factors other than the demographic and social characteristics of the school population

Table 8 - Per cent of other Hispanic pupils with English language difficulty by grade, October, 1973 and May, 1974

Grade	Per cent with severe difficulty (Cat. II only) October	May	Per cent with any difficulty (Cats. I & II) October	May	Number of Pupils October	May
Pre-kindergarten	57	47	84	78	286	237
Kindergarten	36	24	69	55	3,453	2,963
1	30	22	61	52	3,508	3,348
2	17	15	48	44	3,393	3,118
3	19	19	48	45	3,383	2,822
4	18	17	44	40	3,411	3,145
5	16	15	43	36	3,371	2,982
6	21	21	48	42	3,159	2,871[a]
7	23	28	45	46	2,755	2,741[b]
8	18	20	45	46	2,647	2,654
9	21	24	47	46	3,543	3,022
10	17	17	48	45	3,302	2,215
11	11	9	40	39	2,235	1,363
12	5	4	33	19	1,359	1,301

[a] Includes 6-7 classes, N = 88

[b] Includes 7-8 classes, N = 135

will be needed to account for variability in the extent of English language competence of Hispanic pupils.

This concludes our discussion of the "number and location of affected children." We now turn to consideration of the special services available to pupils with English language difficulty.

SERVICES FOR PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

The importance of the May survey is not so much in what it tells us about the number of Hispanic pupils who have difficulty speaking English--the October language censuses are at least as adequate for this purpose--but in what it tells us about the extent to which pupils in need are in fact receiving special services. For a number of years the schools have made some organized effort to provide for the special needs of children whose native language is Spanish and who do not speak English well. However, until the May survey there has been no way of determining to what extent special services have actually been available to pupils with English language difficulty. The May survey included a list of 14 special services and requested teachers to indicate, for each pupil in their classes with English language difficulty, the number of hours per week the pupil participated in each program. Thus, from the survey it is possible to determine what percentage of pupils with severe and/or with moderate English language difficulty receive each kind of service and, for those receiving services, how many hours per week they receive them.

These services are of two basic kinds--instruction in Spanish and instruction in English as a second language; in addition, there

are Hispanic cultural studies programs and bilingual supportive services. In some schools, these services are organized into a single program, designated here as "bilingual instruction program." Pupils who participate in a bilingual instruction program are not counted as participating in any of the other programs because all of the separately listed programs are elements of a full bilingual instruction program. But pupils who do not have full bilingual instruction may be listed in any number of the other individual programs. Pupils who receive no specialized service are indicated as participating in the basic educational program only.

Table 9 shows the number and per cent of all Hispanic pupils in the city with English language difficulty who participate in the basic educational program only and the number and per cent who receive each service.[3] In each row, the estimated number of pupils in the category is shown on the top line and the percentage that number is of the total for the row is shown on the second line. For example, 7,618 pupils receive the basic program only, and this is 11.9 per cent of all Hispanic pupils with English language difficulty. Data are shown separately for each grade as well as for all

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[3]The discerning reader will note that the tables show a total of 64,202 Hispanic pupils with English language difficulty in May, 1974, while the October, 1973 language census showed a total of 98,913. This discrepancy can be accounted for as follows: the October data showed a total of 297,008 Hispanic pupils, of which 33 per cent, or 64,202, had difficulty with English. The May data, by contrast, showed a total of 261,099 Hispanic pupils, 12 per cent less than in October. In part, this is due to the fact that the data tape upon which this analysis is based excluded about 10 high schools and a number of special schools for which data had not been received in time; this probably accounts for about three per cent of the data. Some unknown additional shrinkage is due to incomplete data: any Hispanic pupil for whom the teacher neglected to enter a code for language group is omitted from the count of Hispanics. It is hard to estimate the amount of data omitted in this way, but a good guess would be on the order of two per cent. The remaining difference between the October

TABLE 9
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.

POPULATION GROUP = TOTAL HISPAN 1 + 2

ROWS = GRADE COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILING-UAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM	SUPPORT SERVICE
ALL GRADES	64202	7618	19812	16557	5448	4851	4076	4224	2673	9181	5980	20168	6163	1143	1226	42096
	100.0	11.9	30.9	25.8	8.5	7.6	6.3	6.6	4.2	14.3	9.3	31.4	9.6	1.8	1.9	65.6
GRADE 12	592	178	54	191	54	60	54	69	5	23	8	124	9	2	42	224
	100.0	30.1	9.1	32.3	9.1	10.1	9.1	11.7	0.8	3.9	1.4	20.9	1.5	0.3	7.1	37.8
GRADE 11	1160	302	196	465	126	63	65	75	39	42	72	162	16	2	12	496
	100.0	26.0	16.9	40.1	10.9	5.4	5.6	6.5	3.4	3.6	6.2	14.0	1.4	0.2	1.0	42.8
GRADE 10	2382	331	718	1293	338	280	397	346	206	79	113	316	35	27	163	1333
	100.0	13.9	30.1	54.3	14.2	11.8	16.7	14.5	8.6	3.3	4.7	13.3	1.5	1.1	6.8	56.0
GRADE 9	3377	609	918	1316	552	509	472	449	215	166	350	617	181	79	183	1696
	100.0	18.0	27.2	39.0	16.3	15.1	14.0	13.3	6.4	4.9	10.4	18.3	5.4	2.3	5.4	46.9
GRADE 8	3257	623	1252	723	357	426	404	413	139	161	226	520	176	68	110	1893
	100.0	19.1	38.4	22.2	11.0	13.1	12.4	12.7	4.3	4.9	6.9	16.0	5.4	2.1	3.4	58.1
GRADE 7	3495	570	1460	730	380	400	394	339	259	182	268	588	267	96	107	2153
	100.0	16.3	41.8	20.9	10.9	11.4	11.3	9.7	7.4	5.2	7.7	16.8	7.6	2.7	3.1	61.6
GRADE 6	1778	353	1251	890	406	395	270	319	157	660	472	1430	552	181	80	2666
	100.0	9.3	33.1	23.6	10.7	10.5	7.1	8.4	4.2	17.5	12.5	37.9	14.6	4.8	2.1	70.6
GRADE 5	4579	390	1184	1250	393	380	227	256	205	1177	490	2094	580	71	74	2962
	100.0	8.5	25.9	27.3	8.6	8.3	5.0	5.6	4.5	25.7	10.7	45.7	12.7	1.6	1.6	64.7
GRADE 4	5232	372	1520	1252	318	327	225	265	127	1141	492	2322	634	61	117	3516
	100.0	7.1	29.1	23.9	6.1	6.2	4.3	5.1	2.4	21.8	9.4	44.4	12.1	1.2	2.2	67.2
GRADE 3	6214	443	2004	1364	384	338	227	221	229	1219	574	2521	678	56	55	4346
	100.0	7.1	32.2	22.0	6.2	5.4	3.7	3.6	3.7	19.6	9.2	40.6	10.9	0.9	0.9	69.9
GRADE 2	7460	581	2777	1870	433	327	259	313	209	1235	668	2677	804	102	22	5458
	100.0	7.8	37.2	25.1	5.8	4.4	3.5	4.2	2.8	16.6	9.0	35.9	10.8	1.4	0.3	73.2
GRADE 1	5940	704	3798	2680	580	491	386	387	317	1474	820	3438	1123	102	122	7225
	100.0	7.1	38.2	27.0	5.8	4.9	3.9	3.9	3.2	14.8	8.2	34.6	11.3	1.0	1.2	72.7
KINDER-GARTEN	7965	1352	1560	1724	482	329	322	312	228	1155	947	2268	742	207	87	5061
	100.0	17.0	19.6	21.6	6.1	4.1	4.0	3.9	2.9	14.5	11.9	28.5	9.3	2.6	1.1	63.5
PRE-K	933	108	180	105	92	63	36	47	31	50	156	21	20	30	13	853
	100.0	10.8	18.0	10.5	9.2	6.3	3.6	4.7	3.1	5.0	15.6	2.1	2.0	3.0	1.3	85.5
OTHER	2274	598	315	279	395	332	273	308	252	303	213	699	227	46	9	1171
	100.0	26.3	13.9	12.3	17.4	14.6	12.0	13.5	11.1	13.3	9.4	30.7	10.0	2.0	0.4	51.5

TAB
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.

POPULATION GROUP = TOTAL HISPANIC CAT 1

ROWS = GRADE COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILINGUAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM	SUPPORT SERVICE
ALL GRADES	39563 100.0	5782 14.6	9056 22.9	9211 23.3	2904 7.3	2640 6.7	2021 5.1	2230 5.6	1447 3.7	6400 16.2	3536 8.9	14822 37.5	3977 10.1	565 1.4	553 1.4	24108 60.9
GRADE 12	408 100.0	127 31.1	36 8.8	120 29.4	39 9.6	25 6.1	20 4.9	29 7.1	3 0.7	21 5.1	4 1.0	102 25.0	9 2.2	2 0.5	18 4.4	143 35.0
GRADE 11	767 100.0	220 28.7	90 11.7	276 36.0	71 9.3	31 4.0	33 4.3	32 4.2	5 0.7	26 3.4	52 6.8	128 16.7	10 1.3	2 0.3	4 0.5	327 42.6
GRADE 10	1210 100.0	216 17.9	200 16.5	542 44.8	115 9.5	218 18.0	183 15.1	181 15.0	154 12.7	57 4.7	68 5.6	237 19.6	31 2.6	9 0.7	144 11.9	520 43.0
GRADE 9	1903 100.0	498 26.2	240 12.6	510 26.8	274 14.4	270 14.2	244 12.8	243 12.8	100 5.3	129 6.8	204 10.7	484 25.4	108 5.7	49 2.6	60 3.2	756 39.7
GRADE 8	1695 100.0	530 28.0	505 26.6	358 18.9	182 9.6	203 10.7	179 9.4	216 11.4	83 4.4	103 5.4	81 4.3	394 20.8	69 3.6	9 0.5	33 1.7	917 48.4
GRADE 7	1870 100.0	466 24.9	537 28.7	308 16.5	172 9.2	145 7.8	128 6.8	126 6.8	85 4.5	135 7.2	90 4.8	458 24.5	154 8.2	25 1.3	26 1.4	970 51.9
GRADE 6	2378 100.0	315 13.2	560 23.5	428 18.0	223 9.4	218 9.2	145 6.1	177 7.4	98 4.1	480 20.2	251 10.6	1037 43.6	331 13.9	74 3.1	14 0.6	1580 66.4
GRADE 5	3182 100.0	319 10.0	677 21.3	725 22.8	236 7.4	235 7.4	143 4.5	172 5.4	139 4.4	863 27.1	342 10.7	1622 51.0	397 12.5	46 1.4	42 1.3	1997 62.8
GRADE 4	3664 100.0	300 8.2	860 23.5	788 21.5	207 5.6	220 6.0	141 3.8	175 4.8	75 2.0	894 24.4	363 9.9	1817 49.6	471 12.9	40 1.1	44 1.2	2352 64.2
GRADE 3	4266 100.0	378 8.9	992 23.3	916 21.5	259 6.1	198 4.6	121 2.8	114 2.7	120 2.8	979 22.9	437 10.2	2016 47.3	530 12.4	38 0.9	36 0.8	2795 65.5
GRADE 2	5083 100.0	466 9.2	1505 29.6	1248 24.6	276 5.4	192 3.8	150 3.0	195 3.8	130 2.6	883 17.4	467 9.2	2054 40.4	574 11.3	82 1.6	13 0.3	3572 70.3
GRADE 1	5958 100.0	558 9.4	1629 27.3	1608 27.0	353 5.9	289 4.9	241 4.0	219 3.7	206 3.5	906 15.2	500 8.4	2400 40.3	698 11.7	44 0.7	62 1.0	4036 67.7
KINDER-GARTEN	4214 100.0	836 19.8	710 16.8	880 20.9	205 4.9	129 3.1	120 2.8	128 3.0	96 2.3	626 14.9	439 10.4	1302 30.9	382 9.1	99 2.3	42 1.0	2506 59.5
PRE-K	417 100.0	52 12.5	72 17.3	47 11.3	30 7.2	29 7.0	17 4.1	17 4.1	12 2.9	32 7.7	49 11.8	7 1.7	11 2.6	9 2.2	6 1.4	260 66.3
OTHER	1515 100.0	414 27.3	179 11.8	194 12.8	194 12.8	175 11.6	124 8.2	156 10.3	121 8.0	198 13.1	138 9.1	493 32.5	138 9.1	30 2.0	7 0.5	729 48.1

TABLE 11

NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.

POPULATION GROUP = TOTAL HISPAN CAT 2

ROWS = GRADE COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILING-UAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	CR CLA NAT LAN PROGRAM	SUPPORT SERVICE
ALL GRADES	20954	1384	9524	6278	1656	1515	1273	1234	722	2340	2170	4589	1869	518	601	15571
	100.0	6.6	45.5	30.0	7.9	7.2	6.1	5.9	3.4	11.2	10.4	21.9	8.9	2.5	2.9	74.3
GRADE 12	176	15	13	66	9	34	33	39	2	1	1	16			24	72
	100.0	11.9	10.3	52.4	7.1	27.0	26.2	31.0	1.6	0.8	0.8	12.7			19.0	57.1
GRADE 11	267	56	71	156	19	3	7	13	10	6	14	22			1	128
	100.0	21.0	26.6	58.4	7.1	1.1	2.6	4.9	3.7	2.2	5.2	8.2			0.4	47.9
GRADE 10	697	63	318	380	43	25	29	47	51	14	27	73	3	18	19	450
	100.0	9.0	45.6	54.5	6.2	3.6	4.2	6.7	7.3	2.0	3.9	10.5	0.4	2.6	2.7	64.6
GRADE 9	1299	80	631	731	243	218	209	186	108	32	140	89	59	30	123	868
	100.0	6.2	48.6	56.3	18.7	16.8	16.1	14.3	8.3	2.5	10.8	6.9	4.5	2.3	9.5	66.8
GRADE 8	1039	54	635	298	122	171	182	152	30	50	135	68	105	59	76	726
	100.0	5.2	61.1	28.7	11.7	16.5	17.5	14.6	2.9	4.8	13.0	6.5	10.1	5.7	7.3	75.6
GRADE 7	1444	64	894	390	143	168	179	127	94	36	149	90	105	70	79	1084
	100.0	4.4	61.9	27.0	9.9	11.6	12.4	8.8	6.5	2.5	10.3	6.2	7.3	4.8	5.5	75.1
GRADE 6	1172	30	581	440	129	129	77	93	13	166	201	322	182	95	66	919
	100.0	2.6	49.6	37.5	11.0	11.0	6.6	7.9	1.1	14.2	17.2	27.5	15.5	8.4	5.6	78.4
GRADE 5	1135	37	447	444	106	94	36	36	42	229	130	351	148	22	27	822
	100.0	3.3	39.4	39.1	9.3	8.3	3.2	3.2	3.7	20.2	11.5	30.9	13.0	1.9	2.4	72.4
GRADE 4	1313	50	546	435	70	63	40	45	11	212	110	438	152	18	52	983
	100.0	3.8	41.6	33.1	5.3	4.8	3.0	3.4	0.8	16.1	8.4	33.4	11.6	1.4	4.0	74.9
GRADE 3	1671	49	936	407	50	60	32	33	35	220	134	438	134	17	19	1349
	100.0	2.9	56.0	24.4	3.0	3.6	1.9	2.0	2.1	13.2	8.0	26.2	8.0	1.0	1.1	80.7
GRADE 2	2087	83	1143	566	97	85	58	66	49	306	197	539	203	18	7	1666
	100.0	4.0	54.8	27.1	4.6	4.1	2.8	3.2	2.3	14.7	9.4	25.8	9.7	0.9	0.3	79.8
GRADE 1	3626	124	1992	977	200	162	136	133	104	483	286	970	369	27	34	2888
	100.0	3.4	54.9	26.9	5.5	4.5	3.8	3.7	2.9	13.3	7.9	26.8	10.2	0.7	0.9	79.6
KINDER-GARTEN	3450	480	769	739	239	163	164	153	94	471	494	927	300	100	37	2354
	100.0	13.9	22.3	21.4	6.9	4.7	4.8	4.4	2.7	13.7	14.3	26.9	8.7	2.9	1.1	68.2
PRE-K	533	53	99	50	43	22	7	7	7	18	84	14	9	21	7	461
	100.0	9.9	18.6	9.4	8.1	4.1	1.3	1.3	1.3	3.4	15.8	2.6	1.7	3.9	1.3	86.5
OTHER	550	125	122	72	86	62	61	59	47	72	39	158	53	13	2	307
	100.0	23.5	22.2	13.1	15.6	11.3	11.1	10.7	8.5	13.1	7.1	28.7	9.6	2.4	0.4	55.8

grades combined. Tables 10 and 11 show the data separately for pupils with moderate and with severe English language difficulty. Corresponding tables for each district are shown in Appendix IV, except that the district tables distinguish four grade groups rather than individual grades.[4]

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[3](continued) and May counts of Hispanic pupils presumably represents normal shrinkage in enrollment which is known to occur throughout the school year. Although no figures are available separately for Hispanic pupils, the total register in the school system (excluding special schools and classes) as of April 30, 1974, was 96 per cent as large as the register as of October 31, 1973. It is not unreasonable to suppose that the shrinkage in the number of Hispanic pupils attending New York City schools is somewhat larger than that for other groups, given what we know about the class composition and migration patterns of the Hispanic population. Thus, taken together, these various factors quite reasonably account for a 12 per cent shrinkage. In any event, of the 261,099 Hispanic pupils counted in the May survey (in the data available to us), 25 per cent, or 64,202, have difficulty with English.

[4]The remaining tables in the body of the report and all the tables in Appendix IV, like the previous tables showing data for May, 1974, are based on the preliminary, unedited data tape for the entire population surveyed. Because the editing procedure to which we subjected the data as it was returned from the schools indicated a large number of incorrectly completed questionnaires, we had initially planned to base this report upon data from a representative sample for which all the data had been edited and corrected. However, we did not receive a usable computer tape containing the edited data until 1:45 p.m., Saturday, June 29. We were able to make one pass of the data through the computer and produce an initial set of tabulations corresponding to those contained in Tables 9 through 56 and the Appendix IV tables. While the edited sample data showed a pattern of results fundamentally similar to those obtained from the unedited population data, certain anomalies appeared in the sample tabulations which require further study. Therefore we chose to present tabulations based on the unedited population data which, we are confident, reasonably reflect the general pattern of specialized services and personnel available to Hispanic pupils with English language difficulty.

We had a reservation about using the unedited data to determine the extent to which pupils receive various program services. The teachers were instructed not to list any hours of participation in any of the other specific program services for pupils participating in full bilingual programs. However, the first pass through the editing procedure produced enough cases to cause us concern about whether the teacher listed the hours for pupils in both full bilingual and other programs. Fortunately, however, this possibility does not appear to have important consequences for the estimates of the per cent of pupils receiving

Percentage receiving special services. The great majority of Hispanic pupils with any English language difficulty receive some kind of specialized program services. Only 11.9 per cent receive the "basic program only," which is the residual category indicating that teachers recorded no hours of participation for any one of the 14 special program services. Among pupils with severe difficulty, the record is even better--some 93 per cent receive some sort of service. And among pupils with moderate difficulty, 85 per cent receive service.[5]

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[4](continued) each service. Even though we have not been able to use the edited sample for the basic tabulations, we have been able to make a comparison between the sample and the unedited population data with respect to the percentage of all Hispanic pupils with English language difficulty who receive various services. These figures are shown below:

	Population	Sample
Basic education only	11.9%	15.8%
Full bilingual instruction	30.9	26.5
English as a second language	25.8	21.7
Comprehensive reading program	31.4	29.2

As expected, the sample shows slightly more pupils receiving no special service and slightly fewer receiving each of the listed services, but the differences are hardly great enough to cast serious doubt upon the validity of estimates derived from the population data.

[5]Because concern has been expressed about an under-count of pupils with English language difficulty in the May survey, and because we have not been able to rule out this possibility (see the discussion in Appendix II), it is of interest to know how these figures would be affected by an under-count. Assuming the worst possible case--that the entire difference between the percentages with English language difficulty in the October and May surveys is due to under-reporting in the May survey (a very unlikely possibility) and that no pupils who were improperly omitted from the May survey receive any special program services (also a rather unlikely possibility)--we would estimate that 66 per cent of all pupils with difficulty receive some service. Assuming that half of the percentage difference between the May and October surveys represents under-reporting (a somewhat more plausible assumption), but continuing to assume that the improperly omitted pupils receive no services, we would estimate that 76 per cent of all pupils with difficulty receive some service. Assuming that half of the percentage difference represents an under-count and that half of the improperly omitted pupils receive some service, we would estimate that 83 per cent of all pupils with difficulty receive some service.

The availability of services varies somewhat by grade. In general, a higher percentage of elementary school and pre-kindergarten pupils with English language difficulty receive services than kindergarten, junior high or senior high students, although even in the 12th grade 70 per cent of pupils with difficulty receive specialized services; in all other grades the percentages are higher.

Among pupils with severe difficulty, more than 95 per cent of those in grades 1 through 7, more than 90 per cent of pre-kindergarteners and junior high school students, and more than 80 per cent of students in other grades receive services.

By and large, the availability of specialized program services in the various grades corresponds to the concentration of pupils in need. The one exception is kindergarten classes. Recall from Tables 7 and 8 that 32 per cent of Puerto Rican pupils and 36 per cent of other Hispanic pupils begin kindergarten with severe English language difficulty (as indicated by the October, 1973 data). For whatever reasons, a relatively larger fraction of this group is not provided with any services than is true of pupils in primary grades 1 through 6. About 14 per cent of those with severe difficulty receive the basic program only--that is, are without any services--compared to less than five per cent of those in grades 1 through 7.

Percentage with full bilingual instruction. Thirty-one per cent of all Hispanic pupils with English language difficulty participate in programs of full bilingual instruction, which include subject instruction in Spanish, instruction in English as a second language

(ESL), instruction in Spanish language arts, and Hispanic cultural studies. These programs are much more extensively utilized to service pupils with severe English disability than pupils with moderate disability--46 per cent of those with severe difficulty but only 15 per cent of those with moderate difficulty receive full bilingual instruction.

Among pupils with severe English language difficulty, the greatest participation in full bilingual programs is in grades 1 through 3 and 6 through 8. In these grades, more than 50 per cent of all pupils with English language difficulty are enrolled in full bilingual programs. In grades three, four, nine, and 10, more than 40 per cent of pupils have full bilingual instruction. The percentages are smaller for the remaining grades. It is not obvious why the extent of participation in full bilingual programs drops after the third grade but then picks up again in the sixth grade. Perhaps this indicates a greater availability of such programs in middle schools, but we cannot be sure of this without further analysis.

Among pupils with moderate difficulty, there is much less variation between grades in the level of participation in full bilingual programs, although here as well as among those with severe difficulty participation increases sharply between kindergarten and first grade.

Per cent receiving instruction in English as a second language. About 25 per cent of all Hispanic pupils with English language difficulty receive instruction in a formal "English as a Second Language" (ESL) program. This service is used most extensively in the high

schools: over 50 per cent of high school students with severe difficulty participate in ESL programs. In the remaining grades the level of participation is more modest.

Per cent participating in a comprehensive reading program. In contrast to ESL, comprehensive reading programs are utilized most extensively in the elementary grades, and enroll proportionately more pupils with moderate English difficulty than pupils with severe difficulty. This, of course, is not surprising considering that English is the medium of instruction in this program. Thirty-eight per cent of those with moderate difficulty and 22 per cent of those with severe difficulty participate in comprehensive reading programs.

Extent of participation in other instructional programs. The remaining programs enroll relatively small percentages of pupils. Only Hispanic cultural studies are available to more than 10 per cent of all pupils with English language difficulty, and these programs are most common in the elementary grades. Spanish language subject classes are quite uncommon when they are not part of a full bilingual program, although they are utilized more in junior and senior high schools than in elementary schools. Comprehensive reading programs with reinforcement in Spanish tend to be somewhat more common in elementary schools, just as are comprehensive reading programs without reinforcement. Perhaps because these services are rather uncommon, pupils with severe difficulty are no more likely to receive them than are pupils with moderate difficulty.

Supportive pupil personnel service programs. These programs, which entail services of bilingual guidance counselors, bilingual school and community relations teachers, or bilingual paraprofessionals, are widely available to pupils with English language difficulty. About three-fifths of pupils with moderate difficulty and three-quarters of those with severe difficulty enjoy these services. Although there is a slight tendency for higher proportions of pupils in the lower grades to receive these services, the percentages do not vary much from grade to grade until high school when they taper off somewhat more sharply.

Hours of participation in special programs. In order to provide information on how intensive the various special program services are, Table 12 gives, separately for each program, the average hours per week of service provided to participating pupils. (The school week for most pupils is 30 hours.) As before, the data are provided separately for each grade, and also separately for those with moderate English language difficulty (Table 13) and severe difficulty (Table 14). An additional set of tables is provided which gives a percentage distribution of hours of participation separately for each program service (Tables 15 through 53, shown as Appendix III), but these tables are not discussed here.

As would be expected, full bilingual programs are by far the most intensive of any of the 13 special services. Pupils who participate in full bilingual programs average more than 18 hours per week of bilingual instruction. This average hardly varies for pupils with moderate and severe difficulty and does not vary in any systematic way by grade except that kindergarten and pre-kindergarten programs occupy fewer hours per week, which presumably

TABLE 12
MEAN HOURS FOR PROGRAMS FOR PARTICIPATING STUDENTS

POPULATION GROUP = TOTAL HISPAN 1 + 2

ROWS = GRADE

	BILING-UAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM
ALL GRADES	19812 18.341	16557 5.372	5448 4.789	4851 4.112	4076 3.159	4224 3.354	2673 2.796	9181 1.850	5980 7.084	20108 6.074	6163 4.504	1143 7.360	1226 5.243
GRADE 12	54 14.167	191 6.131	54 3.963	60 5.017	54 4.722	69 5.304	5 4.600	23 3.696	8 4.250	124 4.710	9 5.000	2 2.000	42 4.905
GRADE 11	196 10.469	465 7.153	126 4.270	63 4.635	65 4.385	75 4.587	39 5.179	42 4.238	72 6.917	162 4.586	16 4.250	2 1.000	12 3.813
GRADE 10	718 11.877	1293 7.302	338 4.314	280 4.621	351 3.995	346 4.084	206 4.956	79 4.418	113 10.655	316 4.924	35 4.800	27 2.926	163 4.963
GRADE 9	916 17.855	1316 9.563	552 4.471	509 4.534	472 4.439	446 4.379	215 2.642	166 3.627	350 10.854	617 3.799	181 3.768	79 2.101	183 5.875
GRADE 8	1252 22.739	723 6.956	357 4.613	426 6.857	404 4.963	413 5.046	135 2.079	161 2.112	226 9.774	520 4.013	176 3.614	68 16.044	110 3.036
GRADE 7	1460 22.415	730 5.797	380 4.534	400 4.520	364 3.817	339 3.994	259 2.676	182 2.297	268 10.231	588 4.316	267 4.985	96 19.104	107 1.103
GRADE 6	1251 17.445	890 5.779	406 6.320	365 4.319	270 3.159	319 3.288	157 3.673	660 1.809	472 7.055	1430 6.314	552 4.726	181 6.934	90 2.387
GRADE 5	1184 16.064	1250 4.605	393 5.771	380 3.692	227 2.559	256 2.668	205 1.971	1177 2.095	490 6.020	2034 6.185	580 4.317	71 7.789	74 8.932
GRADE 4	1520 16.925	1252 4.263	318 4.780	327 3.508	225 2.169	265 3.355	127 2.740	1141 1.650	492 4.650	2322 6.711	634 4.569	61 3.426	117 10.872
GRADE 3	2004 18.269	1364 3.663	384 5.026	338 3.553	227 2.313	221 2.570	229 2.991	1219 1.561	574 4.441	2521 6.628	678 4.851	56 3.036	55 2.127
GRADE 2	2777 20.482	1870 4.421	433 4.697	327 3.211	259 2.363	313 2.335	209 1.805	1235 1.598	668 5.795	2677 7.161	804 4.700	102 6.604	22 2.364
GRADE 1	3798 20.339	2680 4.229	580 5.107	491 3.658	368 1.940	387 2.181	317 1.814	1474 1.453	820 9.287	3438 6.925	1123 5.254	102 8.108	122 4.377
KINDER-GARTEN	1560 11.502	1724 4.166	482 2.998	329 1.793	322 1.165	312 1.250	228 1.855	1155 1.394	947 6.245	2268 4.183	742 3.301	207 4.502	87 2.736
PRE-K	140 7.833	105 8.219	92 5.109	63 2.349	36 1.889	47 2.234	31 3.774	58 1.162	156 10.654	21 2.429	20 5.000	30 8.167	13 7.308
OTHER	315 16.222	279 6.161	395 4.818	332 3.819	273 2.432	308 3.208	252 3.690	303 2.109	213 5.047	699 5.854	227 3.458	46 3.022	9 1.444

TABLE 13
MEAN HOURS FOR PROGRAMS FOR PARTICIPATING STUDENTS

POPULATION GROUP = TOTAL HISPAN CAT 1

ROWS = GRADE

	BILING-UAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	PATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM
ALL GRADES	9056 17.441	9211 4.782	2904 4.608	2640 4.080	2021 3.107	2230 3.321	1447 2.377	6400 1.793	3536 6.608	14822 6.232	3977 4.495	565 4.681	553 4.025
GRADE 12	36 16.333	120 5.608	39 3.718	25 4.960	20 4.850	29 5.414	3 4.333	21 3.667	4 3.500	102 4.882	9 5.000	2 2.000	18 4.778
GRADE 11	90 14.349	276 6.355	71 3.915	31 4.355	22 3.879	32 4.313	5 6.800	26 4.231	52 7.308	128 4.484	10 3.800	2 1.000	4 3.000
GRADE 10	200 14.490	542 6.245	115 4.643	218 4.743	182 4.863	181 4.674	154 4.908	57 4.386	68 13.147	237 5.253	31 4.774	9 2.778	144 4.958
GRADE 9	240 16.496	510 8.655	274 4.350	270 4.367	244 4.254	243 4.259	100 2.510	129 3.527	204 13.103	484 3.820	108 3.898	49 1.898	60 4.650
GRADE 8	505 21.566	358 6.944	182 4.451	203 5.350	179 5.117	216 5.000	83 1.940	103 1.767	81 7.864	394 3.919	69 3.435	9 11.111	33 1.485
GRADE 7	537 22.410	308 5.218	172 4.285	145 4.593	128 4.281	128 4.477	85 2.224	135 2.519	90 14.333	458 4.574	154 5.682	25 4.000	26 1.000
GRADE 6	580 16.859	428 5.175	223 4.888	218 4.115	145 2.717	177 2.791	98 1.418	480 1.727	251 5.920	1037 6.574	331 3.816	74 4.554	14 1.286
GRADE 5	677 14.845	725 4.116	236 6.225	235 4.230	143 2.497	172 2.657	139 1.669	863 2.486	342 5.912	1622 6.279	357 4.194	46 7.696	42 9.738
GRADE 4	860 16.373	788 3.911	207 4.420	220 4.068	141 1.993	175 2.651	75 1.667	894 1.569	363 4.088	1817 6.777	471 4.378	40 3.475	44 4.773
GRADE 3	992 15.843	916 3.619	259 4.042	198 3.737	121 2.008	114 2.237	120 1.725	979 1.606	437 4.332	2016 6.703	530 4.938	38 2.895	36 1.639
GRADE 2	1505 19.432	1248 4.059	276 4.757	192 3.286	150 2.380	195 2.374	130 1.315	883 1.490	467 5.850	2054 7.356	574 4.641	82 7.232	13 1.692
GRADE 1	1629 19.661	1608 3.853	353 5.317	289 3.941	241 2.029	219 2.566	206 1.811	906 1.493	500 8.100	2400 6.998	698 5.229	44 1.909	62 2.452
KINDER-GARTEN	710 10.145	880 4.478	205 3.205	129 1.884	120 1.108	128 1.219	96 1.958	626 1.340	439 4.943	1302 4.227	382 3.288	99 4.384	42 3.071
PRE-K	72 7.833	47 8.021	30 3.233	29 1.931	17 1.235	17 1.235	12 2.250	32 1.000	49 11.653	7 2.571	11 5.000	9 10.556	6 6.667
OTHER	179 14.682	194 7.356	194 4.077	175 3.920	124 2.347	156 3.423	121 3.455	198 2.328	138 5.572	493 6.140	138 4.072	30 2.933	7 1.571

TABLE 14
MEAN HOURS FOR PROGRAMS FOR PARTICIPATING STUDENTS

POPULATION GROUP = TOTAL HISPANIC

ROWS = GRADE

	BILINGUAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM
ALL GRADES	9524 19.805	6278 5.843	1656 4.150	1515 4.249	1273 3.266	1234 3.284	722 2.342	2340 2.047	2170 7.876	4589 5.640	1869 4.530	518 9.622	601 6.065
GRADE 12	13 11.692	66 7.167	9 4.222	34 4.912	33 4.636	39 5.103	2 5.000	1 4.000	1 5.000	16 3.625			24 5.000
GRADE 11	71 8.169	156 8.122	19 4.053	3 4.667	7 4.857	13 4.462	10 4.800	6 3.667	14 5.571	22 5.227			1 3.000
GRADE 10	318 13.713	386 9.050	43 5.465	25 5.320	25 4.724	47 4.234	51 4.980	14 4.357	27 6.926	73 3.986	3 5.000	18 3.000	19 5.000
GRADE 9	631 18.616	731 9.153	243 4.403	218 4.757	205 4.641	186 4.543	108 2.787	32 4.438	140 7.943	89 3.775	59 3.966	30 2.433	123 6.398
GRADE 8	635 22.981	298 6.356	122 4.090	171 8.825	182 4.967	152 5.204	30 2.167	50 3.000	135 11.207	68 4.029	105 3.762	59 16.797	76 3.737
GRADE 7	894 22.434	390 6.356	143 3.790	168 4.524	179 3.536	127 3.441	94 2.468	30 1.667	149 9.295	90 3.778	105 4.105	70 24.757	79 1.127
GRADE 6	591 18.866	440 6.436	129 4.977	129 3.837	77 2.779	93 2.892	13 1.462	166 1.819	201 8.811	322 5.398	182 5.780	99 8.444	66 2.621
GRADE 5	447 19.067	444 5.032	106 5.085	94 3.213	36 3.028	36 2.278	42 1.262	229 5.140	130 6.308	351 6.011	148 5.135	22 8.727	27 9.000
GRADE 4	546 18.640	435 4.697	70 3.800	63 3.568	40 2.075	45 2.667	11 1.636	212 2.071	110 6.936	438 6.258	152 5.289	18 3.500	52 16.019
GRADE 3	936 21.099	407 3.767	50 4.340	60 3.717	32 2.219	33 2.727	35 1.829	220 1.382	134 4.873	438 6.324	134 4.493	17 3.471	19 3.053
GRADE 2	1143 22.490	566 5.272	97 4.237	85 2.906	58 2.897	66 2.636	49 2.306	306 1.928	197 5.741	539 6.703	203 4.956	18 5.389	7 3.714
GRADE 1	1992 21.080	977 4.327	200 4.680	162 3.333	136 1.728	133 1.737	104 1.538	483 1.375	286 9.976	970 6.676	369 5.047	27 2.815	34 3.588
KINDER-GARTEN	769 12.771	739 3.779	239 2.406	163 1.411	164 1.079	153 1.150	94 1.191	471 1.406	494 7.425	927 4.093	300 3.100	100 4.660	37 2.405
PRE-K	99 7.364	50 8.640	43 3.721	22 2.545	7 1.571	7 2.143	7 2.571	18 1.444	84 10.250	14 2.357	9 5.000	21 7.143	7 7.857
OTHER	122 19.598	72 3.389	86 3.907	62 3.984	61 2.492	59 3.000	47 2.617	72 1.861	39 5.308	158 5.646	53 2.038	13 3.692	2 1.000

reflects the short school week of these pupils.

None of the other programs is very intensive. For the most part they appear to entail one or two class periods per day, although Hispanic cultural studies is even more limited than that. Of course, it must be remembered that these programs are often offered in combination, so that the average number of hours of program services received by pupils is bound to be considerably larger than the average number of hours of participation in any given program. There is not much variation from grade to grade in the intensity of these programs, although the average number of hours of Spanish language instruction in subject areas does appear to be somewhat greater in the higher grades. There is also not much variation in the intensity of services for pupils with moderate and severe English language difficulty, with one exception. Orientation classes for pupils with severe difficulty average nearly 10 hours per week while orientation classes for those with moderate difficulty average less than five hours per week.

Summary

Most Hispanic pupils with English language difficulty receive some special services. This includes about 85 per cent of those with moderate difficulty and about 94 per cent of those with severe difficulty. Full bilingual programs are available to nearly half of those with severe English language difficulty, but only to about 15 per cent of those with moderate difficulty. These programs tend to be most common in the elementary and junior high school grades. By contrast, English as a second language is the most common instructional program available to high school students with English language

difficulty. Comprehensive reading programs are used, most extensively in the elementary grades, for those pupils with moderate rather than severe English language difficulty. All the other instructional services are relatively uncommon. On the other hand, supportive pupil services are quite common, and are received by about 60 per cent of those with moderate difficulty and three-quarters of those with severe difficulty.

Full bilingual programs are, of course, most intensive, averaging 18 hours per week for those pupils receiving them. Most other programs average three to six hours per week or one to two class periods per day. The number of hours per week of participation in these programs does not differ much for those with moderate and severe difficulty, except that orientation classes are about twice as intensive for those with severe difficulty, averaging close to 10 hours per week.

PERSONNEL FLUENT IN SPANISH

Our final task is to assess the extent to which Hispanic pupils with English language difficulty have contact with school personnel fluent in Spanish. The home room teacher was asked to indicate for each pupil with English language difficulty whether the pupil's home room teacher, the cluster teacher (if any), at least one subject teacher (if any other than the home room teacher), at least one paraprofessional (if any), or any pupil services personnel (guidance counselors, etc.), are fluent in Spanish. Estimates of the extent to which pupils have access to these personnel are presented in Tables 54 through 56.

TABLE 54
NUMBER AND PERCENTAGE OF HISPANIC PUPILS
WITH BILINGUAL PERSONNEL
FOR EACH GRADE CITY-WIDE

POPULATION GROUP = TOTAL HISPAN 1 + 2

ROWS = GRADE COLUMNS = PER CENT AND NUMBER WITH BILINGUAL PERSONNEL

	TOTAL	ENGLISH PERSONL ONLY	HOME ROOM TEACHER	CLUSTER TEACHER	SUBJECT TEACHER	PARA PROFES-SIONAL	PUPIL PERSONL SERVICE
ALL GRADES	64202 100.0	16335 25.4	19543 30.4	9807 15.3	16670 26.0	31666 49.3	34987 54.5
GRADE 12	592 100.0	246 41.6	107 18.1	5 0.8	208 35.1	113 19.1	287 48.5
GRADE 11	1160 100.0	383 33.0	240 20.7	15 1.3	518 44.7	306 26.4	635 54.7
GRADE 10	2382 100.0	562 23.6	820 34.4	35 1.5	1387 58.2	642 27.0	1574 66.1
GRADE 9	3377 100.0	1014 30.0	1328 39.3	217 6.4	1775 52.6	1476 43.7	1760 52.1
GRADE 8	3257 100.0	703 21.6	1632 50.1	572 17.6	1797 55.2	1694 52.0	1750 53.7
GRADE 7	3495 100.0	717 20.5	1693 48.4	706 20.2	2083 59.6	1991 57.0	2007 57.4
GRADE 6	3778 100.0	918 24.3	1105 29.2	715 19.0	1181 31.3	1872 49.6	2064 54.6
GRADE 5	4579 100.0	1222 26.7	1089 23.8	742 16.2	738 16.1	2176 47.5	2459 53.7
GRADE 4	5232 100.0	1348 25.8	1417 27.1	866 16.6	945 18.1	2475 47.3	2713 51.9
GRADE 3	6214 100.0	1606 25.8	1674 26.9	1156 18.6	989 15.9	3294 53.0	3428 55.2
GRADE 2	7460 100.0	1651 22.1	2506 33.6	1270 17.0	1344 18.0	4277 57.3	4285 57.4
GRADE 1	9940 100.0	2193 22.1	3289 33.1	1836 18.5	1905 19.2	5666 57.0	5497 55.3
KINDER-GARTEN	7965 100.0	2542 31.9	1346 16.9	1115 14.0	791 9.9	3470 43.6	4038 50.7
PRE-K	998 100.0	80 8.0	174 17.4	33 3.3	45 4.9	824 82.6	656 65.7
OTHER	2274 100.0	934 41.1	358 15.7	168 7.4	392 17.2	507 22.3	1035 45.5

TABLE 55
NUMBER AND PERCENTAGE OF HISPANIC PUPILS
WITH BILINGUAL PERSONNEL
PER EACH GRADE CITYWIDE

POPULATION GROUP = TOTAL HISPAN CAT 1

ROWS = GRADE

COLUMNS = PER CENT AND NUMBER WITH BILINGUAL PERSONNEL

	TOTAL	ENGLISH PERSONL ONLY	HOME ROOM TEACHER	CLUSTER TEACHER	SUBJECT TEACHER	PARA PROFES-SIONAL	PUPIL PERSONL SERVICE
ALL GRADES	35563	11817	8784	5151	8102	17630	19953
	100.0	29.9	22.2	13.0	20.5	44.6	50.4
GRADE 12	408	170	57	2	127	102	201
	100.0	41.7	14.0	0.5	31.1	25.0	49.3
GRADE 11	767	271	134	13	304	189	416
	100.0	35.3	17.5	1.7	39.6	24.6	54.2
GRADE 10	1210	391	351	5	529	358	650
	100.0	32.3	29.0	0.4	43.7	29.6	53.7
GRADE 9	1903	756	471	140	757	628	742
	100.0	39.7	24.8	7.4	39.8	33.0	39.0
GRADE 8	1895	521	681	257	836	802	909
	100.0	27.5	35.9	13.6	44.1	42.3	48.0
GRADE 7	1870	545	555	294	890	939	919
	100.0	29.1	29.7	15.7	47.6	50.2	49.1
GRADE 6	2378	707	459	289	591	1069	1225
	100.0	29.7	19.3	12.2	24.9	45.0	51.5
GRADE 5	3182	952	628	437	426	1426	1617
	100.0	29.9	19.7	13.7	13.4	44.8	50.8
GRADE 4	3664	1026	763	512	595	1569	1848
	100.0	28.0	20.8	14.0	16.2	42.8	50.4
GRADE 3	4266	1256	792	638	517	2044	2177
	100.0	29.4	18.6	15.0	12.1	47.9	51.0
GRADE 2	5043	1243	1358	837	750	2702	2858
	100.0	24.5	26.7	16.5	14.8	53.2	56.2
GRADE 1	5558	1648	1373	914	908	3015	3048
	100.0	27.7	23.0	15.3	15.2	50.6	51.2
KINDER-GARTEN	4214	1479	574	524	352	1701	2006
	100.0	35.1	13.6	12.4	8.4	40.4	47.6
PRE-K	417	40	63	13	11	337	270
	100.0	9.6	15.1	3.1	2.6	80.8	64.7
OTHER	1515	646	216	105	264	306	656
	100.0	42.6	14.3	6.9	17.4	20.2	43.3

TABLE 56
NUMBER AND PERCENTAGE OF HISPANIC PUPILS
WITH BILINGUAL PERSONNEL
FOR EACH GRADE CITYWIDE

POPULATION GROUP = TOTAL HISPANIC

ROWS = GRADE

COLUMNS = PER CENT AND NUMBER WITH BILINGUAL PERSONNEL

	TOTAL	ENGLISH PERSONL ONLY	HOME ROOM TEACHER	CLUSTER TEACHER	SUBJECT TEACHER	PARA PROFES-SIONAL	PUPIL PERSONL SERVICE
ALL GRADES	20954 100.0	3509 16.7	9498 45.3	4017 19.2	7306 34.9	12491 59.6	13116 62.6
GRADE 12	126 100.0	43 34.1	44 34.9	2 1.6	70 55.6	10 7.9	68 54.0
GRADE 11	267 100.0	87 32.6	77 28.8		153 57.3	69 25.8	155 58.1
GRADE 10	697 100.0	110 15.8	344 49.4	30 4.3	473 67.9	209 30.0	518 74.3
GRADE 9	1299 100.0	177 13.6	811 62.4	59 4.5	967 74.4	795 61.2	939 72.3
GRADE 8	1039 100.0	122 11.7	780 75.1	222 21.4	764 73.5	707 68.0	678 65.3
GRADE 7	1444 100.0	103 7.1	1074 74.4	396 27.4	1117 77.4	1002 69.4	1000 69.3
GRADE 6	1172 100.0	145 12.4	558 47.6	340 29.0	544 46.4	722 61.6	745 63.6
GRADE 5	1135 100.0	184 16.2	416 36.7	271 23.9	267 23.5	649 57.2	721 63.5
GRADE 4	1313 100.0	229 17.4	554 42.2	265 20.2	324 24.7	779 59.3	777 59.2
GRADE 3	1671 100.0	242 14.5	785 47.0	465 27.8	429 25.7	1141 68.3	1147 68.6
GRADE 2	2087 100.0	335 16.1	1028 49.3	373 17.9	541 25.9	1383 66.3	1293 62.0
GRADE 1	3626 100.0	486 13.4	1742 48.0	830 22.9	851 23.5	2398 66.1	2245 61.9
KINDER-GARTEN	3450 100.0	974 28.2	709 20.6	542 15.7	351 11.3	1631 47.3	1879 54.5
PRE-K	533 100.0	38 7.1	87 16.3	20 3.8	38 7.1	454 85.2	340 63.8
OTHER	550 100.0	196 35.6	123 22.4	57 10.4	120 21.8	141 25.6	305 55.5

Extent of contact with Spanish speaking personnel. About three-quarters of all Hispanic pupils with English language difficulty have contact with at least one Spanish speaking teacher or para-professional--that is, only one-quarter have no contact with any Spanish speaking personnel in the five surveyed categories. Among those with severe English language difficulty, about 83 per cent have contact with Spanish speaking school personnel, while among those with moderate difficulty about 70 per cent have such contact.

These percentages vary relatively little from grade to grade except that Spanish speaking personnel are somewhat less available in the 11th and 12th grades. Also, in keeping with the pattern we have noted repeatedly, kindergarteners do not fare very well, compared both to pre-kindergarteners and first graders. Pre-kindergarten classes exist only in a limited number of schools and apparently are organized to provide considerable service to pupils who do not speak English at home. Kindergarten classes are attended by most (although not all) Hispanic children who enter first grade the following year, and most of these children have not been previously enrolled in pre-kindergarten classes. However, relatively less in the way of specialized services (as we have seen above) or personnel (as we see here) are available in kindergarten than in the successive elementary grades.

Patterns of contact with Spanish speaking personnel. About 30 per cent of pupils with English language difficulty have home room teachers who are fluent in Spanish. This includes somewhat more than 20 per cent of those with moderate difficulty and nearly half

of those with severe difficulty. Among pupils with severe difficulty, those in junior high school are most likely to have Spanish speaking home room teachers--fully three-quarters of 7th and 8th grade pupils have such teachers, which probably reflects a tendency in the junior high schools to group pupils with severe English language difficulty into a few classes and to provide specialized services to all pupils in these classes.

Very much the same pattern characterizes contact with subject teachers, although the proportion of pupils who have Spanish speaking subject teachers is somewhat smaller than the proportion with Spanish speaking home room teachers. Pupils with severe English disability are more likely to have subject teachers fluent in Spanish than pupils with moderate difficulty, and junior high school pupils are most likely to have Spanish speaking subject teachers.

Spanish speaking cluster teachers, para-professionals, and pupil service personnel tend to be about equally available to pupils at all grade levels, except that cluster teachers are generally not found in the high schools. Only about 15 per cent of pupils with English language difficulty have contact with Spanish speaking cluster teachers, but this reflects the fact that not all pupils have any contact with cluster teachers at all. About half of these pupils have contact with Spanish speaking para-professionals and Spanish speaking pupil service personnel, although the percentage is somewhat higher for pupils with severe difficulty than for pupils with moderate difficulty.

Summary

Most Hispanic pupils with English language difficulty have contact with Spanish speaking school personnel. This includes about 70 per cent of those with moderate difficulty and 85 per cent of those with severe difficulty. Among those with severe difficulty, nearly half have home room teachers fluent in Spanish, about a third have at least one subject teacher fluent in Spanish, and around 60 per cent have para-professionals and pupil service personnel fluent in Spanish. The availability of Spanish speaking home room and subject teachers is greatest in the junior high grades, where nearly three-quarters of all pupils with severe difficulty have both home room and subject teachers fluent in Spanish.

CONCLUSIONS

The data presented in this report have shown both a substantial need for special services for Hispanic pupils with English language difficulty and a substantial effort on the part of the schools to meet that need. Whether these efforts are sufficient is not for us to say, for this is the central issue in the pending suit which gave rise to this analysis.

APPENDIX I

TECHNICAL CONSIDERATIONS IN THE DESIGN AND EXECUTION OF THE SURVEY

APPENDIX I

TECHNICAL CONSIDERATIONS IN THE DESIGN AND EXECUTION OF THE SURVEY

Introduction. The following Appendix describes in some detail the types of decisions made, the reasons for these decisions, and the procedures followed to collect and analyze the data on which this report is based. The reasons for decisions basically can be divided into three parts. There are the standard technical considerations which normally are the principal motivations for generating the substantively desired information in its final form. But, in addition, because of the special context in which this survey was conducted, other factors intervened which caused us at times to make decisions which, on purely technical grounds, would have been objectionable. They can be summarized into two categories:

(1) the legal demands imposed by the judge, the attorneys for the plaintiff and the attorneys for the defense.

(2) the almost overwhelming time constraints which made it necessary to make compromises which under more normal circumstances would not have been considered.

This Appendix will be divided into sections describing:

(1) The instrument used in the May survey.

(2) The collection procedures used to gather the data for the May survey.

(3) The editing procedure developed to locate and correct logical inconsistencies which were introduced into the data either by the teachers or the keypunchers.

(4) The sample design and correction procedure which was initiated to cope with the fact that the Board of Education had insufficient time and resources to correct the errors for the entire census.

(5) The weighting procedure used to make the sample representative of the population of the city.

(6) The validity check data collection procedure designed to assess the accuracy of the information on program services collected in the May language survey.

The May language survey instrument. The instrument used in the May Survey of Educational Services for Pupils with English Language Difficulty was designed to collect the information requested by the court in Judge Frankel's memorandum of April 30, 1974. It can be divided into six parts:

1. A section for header information designed to identify the location (class room, grade, school, district, and borough) of pupils with English language difficulty.

2. A language census for each classroom so that the percentage of Hispanic children with English language difficulty can be determined. The categories which were used for the census were not the best possible, because they tend to confuse the difference between ethnicity and language group, but the same categories were used in the October language survey, and at a meeting of the consultants, the attorneys for the plaintiffs, and the attorneys for the defense the decision was made that these categories were to be retained for the May survey in order to ensure comparability with

the earlier survey, and also because it seemed likely that the teachers would be better able to use a classification system with which they were familiar.

3. Pupil identification information. The pupil's name was included only to match information collected for a pupil by a teacher with that collected by monitors checking the accuracy of the information. The sequence number was used to label records for the purpose of analysis without violating the confidentiality of information about particular pupils.

4. A section for information about the language group and language category for each child with English language difficulty. A three category language competence code used in the October language census was repeated. The rationale was the same as for (2) above.

5. A section for information on the number of hours of various bilingual programs to which the pupil may have been exposed.

6. A section for information about bilingual personnel to which the pupil may have been exposed.

A copy of the survey instrument, the accompanying instruction sheet, and the letter to staff from the chancellor concerning the May survey are included in Appendix V.

The collection procedures used to gather the data for the May survey. The information requested in the survey was reported by the home room teachers in all day schools in New York. In the elementary schools, the home room teacher is generally the teacher with whom the pupils have the most contact. This is not true of the junior and senior high schools, but it was decided that there was no efficient means of gathering information about these pupils aside

from assigning primary responsibility for gathering the requested information to the home room teachers, either through using his or her own knowledge of the pupil or through consulting with other appropriate personnel in the schools. The forms were distributed to the principals of each school, who then distributed them to the home room teacher. Upon completion they were returned to the principals and subsequently to the Bureau of Educational Program Research and Statistics (BEPRAS). The forms were then sent to various companies for keypunching and finally were read onto a computer tape at the Board of Education. The keypunching instructions are included in Appendix V.

Edit check. The editing procedure was designed to correct logical inconsistencies and omissions in the data collected in the May survey. It did not have the purpose of determining the accuracy of reported information which was both complete and consistent. This was done by a separate validity check. The following illustration hopefully makes the distinction. If a teacher reported that a pupil was exposed to more than 30 hours of instruction in specialized programs in a week, this would be considered an inconsistency, because pupils only attend school 30 hours per week. If a teacher reported that a pupil was exposed to 15 hours of bilingual programs per week, this case was not checked in the same way because it is possible that this information is correct even though it might not be.

The edit check was accomplished as follows. We constructed a list of requirements which the data would have to fulfill if it were to be logically consistent with the instructions for completing

the survey and with other known facts about the school system. The list of requirements is included in Appendix V. These requirements were then used to produce a list containing all the data for each pupil where at least one item was either inconsistent or omitted. This listing was furnished to BEPRAS which was then supposed to correct the data by phoning the teachers responsible for reporting the information in the May survey.

The edit check procedure produced a much larger number of cases to be corrected than had been anticipated (between 50 and 60 per cent of the cases contained at least one omission or inconsistency). In light of this it became evident that it was beyond the capacity of the clerical staff of BEPRAS--or even of a substantially expanded staff--to correct all the data before teachers left for the summer. It was decided that the procedure outlined below was the only alternative which would both be possible to accomplish and would produce information which might fulfill the directive of the court contained in the memorandum.

(1) The edit check was to be relaxed as follows: (a) in the survey, teachers were required in several instances to indicate positively that pupils received no special program services or were exposed to no personnel fluent in their native language, by making an "X" in special columns on the instrument. The original edit logic included in its list of cases to be corrected all those in which no program or service was recorded and in which these columns were not marked. Upon inspection of the cases listed by the edit procedure, it became evident that a large number of teachers did not follow instructions and indicated neither the presence or absence

of specialized services or personnel. It was decided to assume that if no services or personnel were recorded on the instrument, this was in fact what the teacher meant to report even though he or she had failed to positively indicate this in the special columns. While this assumption could have resulted in an under-report of the true extent of program services or personnel available to pupils with English language difficulty, it was felt that the magnitude of such a bias would not be very great and that in any event its magnitude could be accurately assessed by means of the separate validity check of program services. (b) It was decided to assume that if the personnel section of the instrument was left unmarked, this should be interpreted as meaning that the teacher was indicating that the pupil received no such services.

(2) Errors in the first 39 columns were corrected in all cases (see the instrument in Appendix V). These data will be used in a future report to provide a count for each school of the number of Hispanic pupils in categories 1, 2, and 3.

(3) Errors in columns 40-73 were only corrected for a sample of the population of pupils with English language difficulty.

Sample chosen for editing. The cases corrected were selected as follows. A probability sample of classrooms was drawn from each district in such a way as to produce data for approximately 225 pupils in pre-kindergarten and kindergarten, 350 pupils in grades one through six, and 225 pupils in grades seven through nine, a total of approximately 800 pupils per district. In addition, a probability sample of high school home rooms was drawn in such a way as to produce data for approximately 500 pupils.

With samples of this size we expect to be able to make inferences about the percentage of students receiving programs with a standard error of approximately .03. This figure is determined as follows. Given a sample of 225 and the fact that the probability of each student having a program is governed by a binomial distribution, the standard deviation of a sample proportion based upon 225 observations is $\sqrt{pq}/15$. The largest value of this expression occurs when $p = .5$ and $\sqrt{pq}/15 = .03$. Because the sample was gathered by a cluster procedure, the efficiency is somewhat reduced, and the standard deviation may be 25% larger than would be the case from a simple random sample. On the other hand, since we are sampling without replacement, the standard deviation is reduced by a factor approximately equal to the proportion of pupils with English language difficulty not selected in each group. Since in a number of districts less than half the students were not selected, this reduction can be significant.

Classrooms were sampled with probability proportionate to the number of pupils with English language difficulty, and this was done for two reasons: since much of the time involved in correcting errors is used in attempting to contact teachers, it was decided that a reasonably large sample could most efficiently be corrected if more time was spent contacting teachers who had several pupils with English language difficulty. In addition, it was felt that a weighted sample might more accurately reflect the greater variability to be expected in classrooms containing many pupils with English language difficulty. Since there are comparatively few of these classrooms, it was necessary to design a stratified sampling procedure to insure their selection.

Weighting the sample. The sample analysis will be done on a weighted version of the sample. The method used in drawing the sample naturally resulted in pupils from large classrooms being more likely to be in the sample than pupils from small classrooms. If there were systematic variation in the amount of programs received between large and small classrooms, an unweighted sample would produce distorted results. To correct this, the decision was made to use weights. Their relative magnitude was determined according to the following procedure. The classrooms of each district were categorized into seven groups according to the number of pupils with English language difficulty in each. The pupils were then assigned weights equal to the reciprocal of the proportion of selected pupils from classrooms of this size in each level (preschool, elementary, junior high) in each district. As a result, students from classrooms of all sizes were equally represented in the weighted sample. The absolute magnitude of the weights was set so that the weighted frequency of the sample would equal the number of cases reported in the May survey.

Validity check of reporting of program services. Because the data on the percentage of pupils receiving various special services, and the number of hours of service available to pupils, are the crux of the survey, it is imperative that these data be accurate. To determine the accuracy of teachers' reports on services received by students, we independently collected data on hours of participation in programs for a representative sample of the pupils listed by teachers in Category I or II.

The basic procedure was as follows. Personnel from the Chancellor's Monitoring Task Force were given a list of pupils

reported by their teachers to have difficulty with English. The Monitors then visited the schools, obtained from the principal a list of personnel offering the 14 special program services listed on the questionnaire, and interviewed these personnel, obtaining from them an indication of which services each pupil received and how many hours per week he received the service. If necessary, the Monitor then visited the teacher to obtain additional information (the details are described in the "Instructions for Conducting Validity Check," included in Appendix V).

The list of pupils to be checked was chosen in such a way as to constitute a representative sample of pupils with English language difficulty. The sample consisted of several stages. As a first step, schools were sampled with probability proportionate to the number of Category I or II pupils enrolled in October, 1973. In the second stage, six class rooms containing at least one pupil with English language difficulty were picked in each school, by dividing the May survey questionnaires returned by the school into six piles and choosing the first one in each pile which listed at least one Category I or Category II pupil. In the third stage, the first, middle, and last pupil listed on the form was chosen.

Schools were assigned to the Monitoring Task Force in such a way as to allow them to monitor as large a sample of schools as time permitted. At this point, we do not know precisely how many schools were covered, because processing of these data is in progress.

Our intention is to directly compare the data obtained by the monitors with the data for the same pupils reported by their teachers.

In this way we will be able to determine whether the percentages reported by the teachers accord well with the true percentages of pupils receiving various program services.

APPENDIX II

ASSESSING THE ACCURACY OF THE CLASSIFICATION OF PUPILS WITH RESPECT TO ENGLISH LANGUAGE DIFFICULTY

APPENDIX II

ASSESSING THE ACCURACY OF THE CLASSIFICATION OF PUPILS WITH RESPECT TO ENGLISH LANGUAGE DIFFICULTY

The design of the survey required that each class room or home room teacher classify each of his or her pupils according to his English language competence. To insure comparability with existing data, the "Language Category Code" which has been used in the Board of Education's annual October 31 language census for the past several years was utilized. This code contains three categories:

Category 1 - Pupils who speak English hesitantly at times, or whose regional or foreign accents indicates the need for remedial work in English and/or speech.

Category 2 - Pupils who speak little or no English, whose regional or foreign accents make it impossible for them readily to be understood.

Category 3 - All remaining pupils.

Teachers were asked to list individually all pupils in the class register as of April 30, 1974 whom they judged to be in either Category 1 (hereafter known as "moderate" English language difficulty) or Category 2 (hereafter known as "severe" English language difficulty).

Because the complexity of the survey and the political context in which it was conducted created the possibility that teachers would inaccurately report the number of pupils with English language difficulty, it is important to try to assess the validity of this count.

The main reason for suspecting an under-count of pupils with English language difficulty is that the survey design required

teachers to list all such pupils and then to provide an extensive body of information about the program services and personnel available to each of these pupils. Considering that the survey was conducted near the end of the school year and that teachers were for the most part given very little time in which to complete it, it is possible that a certain fraction of teachers made judgements of pupils' English language competence in such a way as to minimize the number of Category 1 and 2 pupils and therefore to minimize the amount of work required to complete the questionnaire form.

The political context of the survey-- that is, the fact that it was conducted in conjunction with a suit brought by Aspira--gives a second reason for suspecting misrepresentation of the number of pupils with English language difficulty. Although the plaintiff's identity was not mentioned in the cover letter or instructions, it is reasonable to assume that this was widely known by teachers throughout the city, and especially by those teaching in schools with heavy Hispanic concentrations. This could have resulted either in a deliberate over-count of pupils with English language difficulty by those teachers sympathetic to the plaintiff's position or a deliberate under-count of pupils with English language difficulty by those teachers who were hostile.

The basic strategy we have adopted to assess the accuracy of the count of pupils with English language difficulty reported in the current survey is to compare it with the language censuses conducted by the Board of Education each October. Table 2.1

Table 2.1 - Per cent of Hispanic pupils with English language difficulty (elementary and junior high schools), 1970-1974

Year	Per cent with moderate difficulty (Cat. I)	Per cent with severe difficulty (Cat. II)	Total per cent with difficulty (Cats. 1 & II)	Number of Hispanic pupils
October, 1970	28	16	44	227,628
October, 1971	24	13	37	236,855
October, 1972	25	12	37	229,746
October, 1973	23	12	35	227,685
May, 1974	18[a]	9	27	212,020

[a] Includes those Hispanic pupils judged to have English language difficulty but where category (I or II) not indicated; this is about 1% of all Hispanic pupils.

presents the number of Hispanic pupils in elementary and secondary schools in New York City for each year since October, 1970, and the percentage of these pupils with moderate or severe English language difficulty.* These data suggest that the number and percentage of Hispanic pupils in the New York City schools who have difficulty with English has remained fairly constant over the past several years. Slightly more than 10 per cent of all pupils have severe difficulty speaking English and an additional 25 per cent have moderate difficulty. Although it appears that there was a slight improvement in the level of English language competence between 1970 and 1971, the percentages from the October data have since then remained virtually constant.

In this context, the data from the May survey, which seem to imply a five per cent drop in the percentage with moderate difficulty and a three per cent drop in the percentage with severe difficulty, provide a fairly sharp contrast. At first glance, this would appear to constitute prima facie evidence of under-reporting of the extent of English language difficulty among Hispanic pupils. However, before this conclusion can be accepted, alternative explanations must be ruled out.

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*High schools and special schools are excluded, because the survey was returned from a number of these schools too late to be included in the preliminary computer tape from which the present data were extracted. Since we have no way of knowing what sort of bias is intorduced by the omission of these schools, it is best to limit the analysis of possible under-counting (or over-counting) to elementary and junior high grades.

There are, in fact, two reasons to expect the level of English language competence of Hispanic pupils to improve over the course of the school year. First, and most obvious, if the schools are doing their job at all, some pupils will learn to speak better English between October and May, and can therefore legitimately be reclassified from Category 2 to Category 1 , or from Category 1 to Category 3, between October and May. Second, differential migration and differential dropping out during the school year may remove from the school those pupils with the greatest English language difficulty. School enrollments are generally lower in the spring than the fall (on October 31, 1973 there were 227,685 Hispanic pupils in elementary and junior high schools in the City while on April 30, 1974 there were only 212,020, a loss of about seven per cent). While no firm evidence is available on withdrawal and migration patterns, it is not unlikely that the reduction in Hispanic enrollment over the course of the school year comes about via a combination of pupils dropping out of school and return migration of pupils born abroad (including Puerto Rico). Of course, emigration might be offset by immigration, but it is probable that many immigrant children simply stay out of school until the start of the following school year. Both return migration and informal withdrawal would be expected to be greatest among those pupils who have difficulty with English.

While it is not possible to test the differential school leaving hypothesis, it is possible to examine the learning hypothesis. Table 2.2 presents data on the level of English language competence

Table 2.2 - Per cent of Hispanic pupils with English language difficulty by grade, October 1973 and May 1974

Grade	Per cent with difficulty (Cat. II only) October	May	Per cent with any difficulty (Cats. I & II) October	May	Number of Hispanic pupils October	May
Pre-kindergarten	46	33	74	62	1,813	1,598
Kindergarten	33	21	63	49	19,905	16,150
1	22	16	53	43	25,433	23,371
2	12	9	41	32	25,563	23,366
3	9	7	35	27	25,355	22,642
4	8	6	30	22	25,299	23,397
5	6	5	26	20	24,471	22,466
6	7	6	25	18	22,420	21,157[a]
7	7	7	22	17	22,277	20,528[b]
8	7	5	23	17	20,605	19,468

[a] Includes 6-7 classes, N = 704

[b] Includes 7-8 classes, N = 544

of Hispanic pupils for each grade from pre-kindergarten through grade eight (recall that complete data are not yet available for high schools), for both October and May. Since we know from Table 2.1 that the overall level of English language difficulty has not changed in the past few years, we can treat the data for October for successive grades as if they referred to the same class in successive years, and likewise for the May data. Then we would expect the true percentages for May to fall in between the October percentages for the same grade and the October percentages for the next higher grade. Because most learning probably takes place between October and May and not between May and October (which includes the summer, in which Hispanic pupils are likely to spend much of their time in Spanish speaking communities), and because of the possibility of differential school leaving discussed above, it is probable that the May percentages for each grade will be close to the October percentages for the next higher grade.

In view of these considerations, we are inclined to interpret the data in Table 2.2 as probably indicating an under-count of the percentage of pupils with any English language difficulty from the second grade on. However, in our judgment, the data do not permit an inference of under-counting of pupils with severe English language difficulty nor an inference of under-counting of pupils with any difficulty prior to the second grade.

Let us review the evidence regarding severe disability first. Consider the first two columns, which give the percentage of Hispanic

pupils with severe English language difficulty reported in October and in May. It is evident from inspection of the data that the greatest improvement in English language competence occurs in the first few years of school; by the end of the second grade less than 10 per cent of all Hispanic pupils have severe difficulty speaking English. The data for the first four years are fully consistent with the notion that a great deal of learning takes place during the school year; and the absence of any reduction in this percentage between May and the next October probably reflects an influx of new enrollment of pupils with more English language difficulty than those who have previously been attending school (note that the enrollment figures increase sharply from pre-kindergarten to kindergarten and from kindergarten to first grade). After the second grade there is virtually no reduction in the percentage with severe difficulty and very little learning between October and May, which may reflect a small but constant immigration stream which offsets any learning which takes place.

The situation with respect to reporting of all Hispanic pupils with any English language difficulty is more ambiguous, but on balance we regard the data as probably indicating an under-count from the second grade on. The third and fourth columns in the table show the percentage with any English language difficulty (obviously, the reader interested in the percentage with moderate difficulty is free to make the appropriate subtraction to obtain these figures; interpreting them is somewhat difficult, however, since the per cent with moderate difficulty will increase as a result of the improvements of those with severe difficulty). Here, with one exception

the data for May exhibit smaller percentages of pupils with difficulty than the October data for the next higher grade. To accept these data at face value would require the assumption that not only do pupils not improve their English between May and October but in fact they get worse. While this assumption is not completely unreasonable - because many pupils no doubt usually speak Spanish outside of school - the more plausible hypothesis is that teachers under-reported the number of pupils with moderate English difficulty. Because the language question was a judgmental one, it is completely understandable that teachers might reduce the number of pupils they report as having moderate difficulty with English and not the number they report as having severe difficulty simply because moderate difficulty is a much more ambiguous category, especially since it involves deciding whether a regional or foreign accent is pronounced enough to require remedial work in English and/or speech. It may also be the case that teachers cease to hear moderately deficient English speech as the year goes by because they get used to the way individual pupils talk. It is obviously much more difficult to fail to recognize that a pupil is more or less completely incapable of communicating in English.

We are not willing to interpret these data as indicating an under-count before grade 2 for the same reason as was given above with respect to severe English difficulty: since many pupils begin school for the first time in kindergarten and in the first grade, one should expect the percentage of pupils who have difficulty with English in October to be higher than the percentage for the previous grade in May. And the percentage with difficulty in the first grade

in May does fall in between the October percentages for the first and second grades.

While it is difficult to get any precise estimate of the magnitude of under-reporting, it is clearly not large. Assuming that all the improvement from one grade to the next occurs during the school year (that is, between October and May) and that there is neither back sliding nor additional learning during the summer, the over all percentage of elementary and junior high school pupils with English language difficulty given in Table 2.1 appears to be about three per cent too low. That is, about 30 per cent of pupils have some English difficulty instead of the 27 per cent shown in the Table.

To help illustrate the pattern of change in the level of English language competence which has led us to our conclusions regarding under-counting, we graph (in Figure 2.1) the percentage of Hispanic pupils in each grade with severe English language difficulty, the percentage with any difficulty, and the adjusted percentage with any difficulty used to arrive at an over all estimate of 30 per cent.

Since for planning purposes the data from the October language censuses can and should be used in preference to the May data, simply because they give a better estimate of the number of pupils with English language difficulty to be expected at the beginning of the school year, the real importance of the exercise just reported is to give some indication of the bias to be expected in the reporting of services for pupils with English language difficulty.

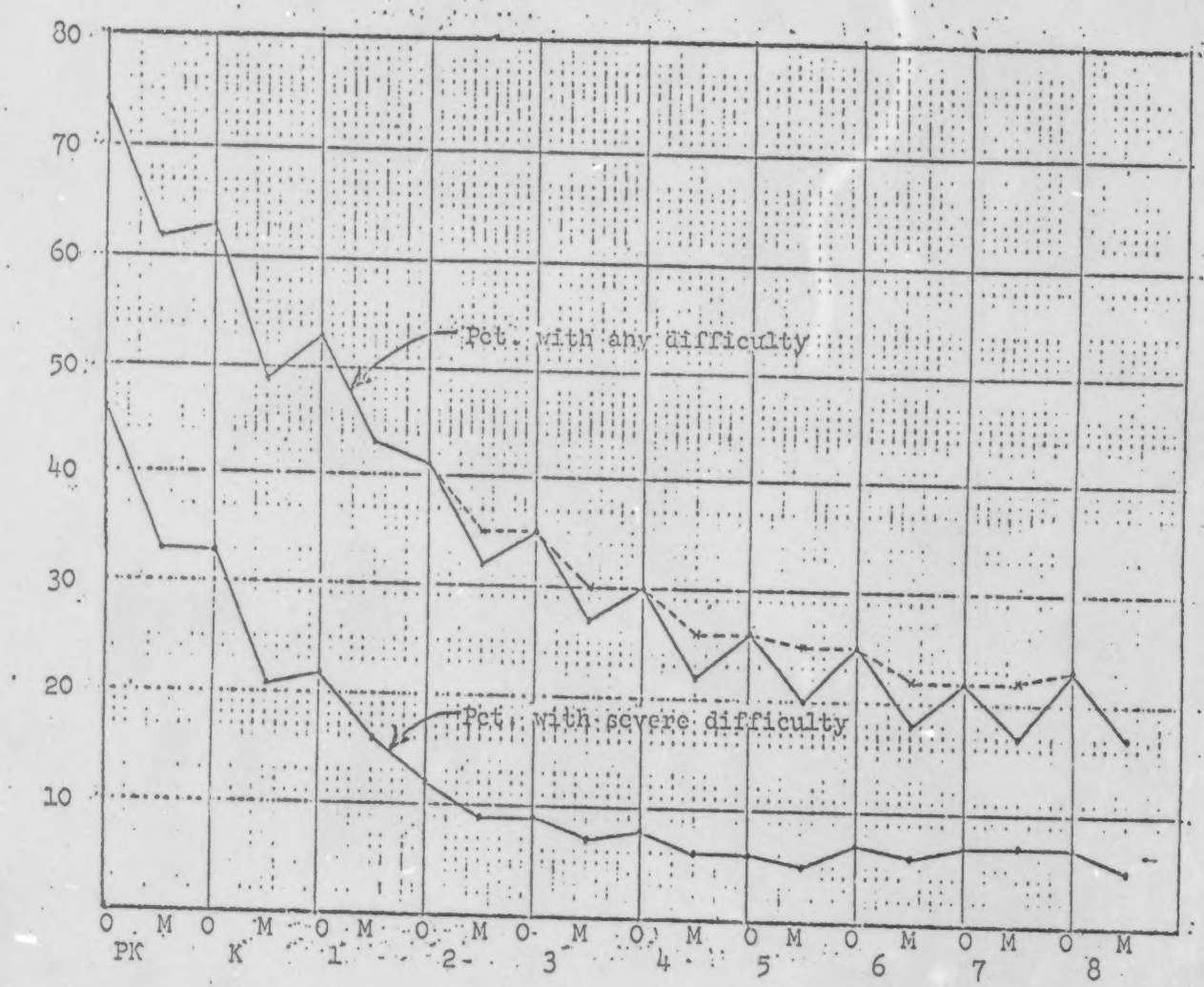

Fig. 2.1 - Per cent of Hispanic pupils with English language difficulty, by grade. Two points are shown for each grade, based on data from the October Language Census (O) and the May survey (M). The dotted line represents an adjustment to correct under-reporting (see text for details).

Obviously, if a sizable number of pupils is improperly excluded from the list of pupils deficient in English, and if these tend to be pupils not receiving services, the estimates of the percentage receiving services will tend to be inflated. Fortunately, we are now able to conclude that the magnitude of any under-reporting is sufficiently small as to have little effect on the estimates of the percentage of pupils with English language difficulty receiving various program services.

While this is true for the City as a whole, it may be the case that the magnitude of under-reporting is greater in specific districts. While we have undertaken no explicit analysis of variations between districts in the extent of under-reporting, it is possible to get some sense of where the problems are greatest by inspecting Tables 2 and 3 in the main body of the report.

APPENDIX III

NUMBER OF HOURS OF SERVICES RECEIVED BY PARTICIPATING STUDENTS

APPENDIX III

NUMBER OF HOURS OF SERVICES RECEIVED

BY PARTICIPATING STUDENTS

These tables give a breakdown of the number of hours per week that students received various services. The first column gives the total number of Hispanic pupils participating in a program (for the indicated grade). The second and succeeding columns distribute these pupils according to the number of hours per week they received. Under each number is a corresponding per cent figure. Each table is percentaged horizontally, row by row. Thus, the percentages in any row should add to 100 (except for rounding error) just as the top number in each row should add to the total in the first column.

Actually, these numbers do not total correctly. The tabulating program was written for edited data. Due to difficulties described elsewhere the analysis was done on the uncorrected data. While these discrepancies are generally small (the percentage for row one in table 15 sum to 97.7 rather than 100.0), they <u>might</u> make a difference in some programs for some grades.

APPENDIX IV

DISTRICT TABLES: programs, hours, and personnel by district by level

(bound separately)

APPENDIX IV

TABLE OF CONTENTS

1. Table 146. Number and percentage of category 1 pupils who are Hispanic for each district for each level.

2. Table 147. Number and percentage of category 2 pupils who are Hispanic for each district for each level.

3. Table 1458. Number and percentage of Hispanic pupils with English language difficulty receiving bilingual program services by level for each district.

4. Table 14581. Percentage distribution of hours per week of bilingual instruction for Hispanic pupils with English language difficulty by district by level.

5. Table 14582. Percentage distribution of hours per week of instruction in English as a second language for Hispanic pupils with English language difficulty by district by level.

6. Table 14583. Percentage distribution of hours per week of bilingual language arts instruction for Hispanic pupils with English language difficulty by district by level.

7. Table 14584. Percentage distribution of hours per week of bilingual mathematics instruction for Hispanic pupils with English language difficulty by district by level.

8. Table 14855. Percentage distribution of hours per week of bilingual science instruction for Hispanic pupils with English language difficlty by district by level.

9. Table 14586. Percentage distribution of hours per week of bilingual social studies instruction for Hispanic pupils with English language difficulty by district by level.

10. Table 14587. Percentage distribution of hours per week of bilingual fine arts instruction for Hispanic pupils with English language difficulty by district by level.

11. Table 14588. Percentage distribution of hours per week of cultural studies for Hispanic pupils with English language difficulty by district by level.

12. Table 14589. Percentage distribution of hours per week of subject areas with reinforcement in the native language for Hispanic pupils with English language difficulty by district by level.

13. Table 14590. Percentage distribution of hours per week of comprehensive reading for Hispanic pupils with English language difficulty by district by level.

14. Table 14591. Percentage distribution of hours per week of comprehensive reading with reinforcement in the native language for Hispanic pupils with English language difficulty by district by level.

15. Table 14592. Percentage distribution of hours per week of orientation classes for Hispanic pupils with English language difficulty by district by level.

16. Table 14593. Percentage distribution of hours per week of orientation classes in the native language for Hispanic pupils with English language difficulty by district by level.

17. Table 1459. Number and percentage of Hispanic pupils with bilingual personnel for each district for each level.

APPENDIX V

DOCUMENTS

SURVEY OF EDUCATIONAL SERVICES FOR PUPILS WITH LANGUAGE DIFFICULTY

Keypunching Instructions

Input will be available from May 28 to June 7th. It is estimated that about 140,000 items will be submitted. The card will be 73 characters in length. Input is to be keypunched and verified. Source documents under Batch Control must be stamped by the Keypuncher and verifier. The form will be two sided. The first 35 characters will be constants header data per school and columns 36 to 72 will be unique data for each student in that school.

Column 1 = always equals a numeric 1.
Column 2 = Borough - can have a numeric 1,2,3,4 or 5.
Column 3-4 = District codes all numeric. Right justify zero fill to left if it is blank.
Column 5 = Level - this can be a numeric 1,2,4,5,6,7,8 or 9.
Column 6 = Type - this can be a numeric 1 or 2.
Column 7-9 = School code - all numeric, right justify, zero fill to left if it is bank.
Column 10 = Grade Code - all alpha.
Column 11-16 = Home Room Class Code - Can be Alpha-Numeric.
Column 17to34 = Language Count - all numeric, right justify zero fill to left. Can also be blank.
Column 35 = TMR class - must be a "Y" or "N" only. Column 35 is the end of the header information which is to be copied for each student's record for that school.

Column 36-37 = Sequence Number - all numeric.
Column 38 = Language Category - a numeric "1" or "2".
Column 39 = Language Code - all numeric, could be a 1,2,3,4,5,6,7 or 8.
Column 40to65 = Hours per week. If any of the thirteen two digit fields are filled in they must be numeric, right justify and zero filled to left. If any fields are not filled in then leave them as blanks.
Column 66 = Supportive Services - Punch a "Y" or a "N".
Column 67 = Basic Program - Punch a "X" or leave blank.
Column 68 = Homeroom Teacher - Punch a "Y" or a "N".
Column 69 = Cluster Teacher - Punch a "Y", "N" or "A".
Column 70 = Subject Teacher - Punch a "Y", "N" or "A".
Column 71 = Para Professional - Punch a "Y", "N" or "A".
Column 72 = Pupil Personnel Services - Punch a "Y", "N" or "A".
Column 73 = English Speaking - Punch a "X" or leave blank.

Edit Program Logic -

The edit program should read in each 73 character record and make the logic tests indicated below. If the total record is valid, write it out to a valid record tape. If any field is not valid then print out the record on an error report. Put the survey name on the heading, list page number, date of printout. Print the entire record with some spaces between each field. Underline with "***" the fields in error. Skip two lines between each record. BPPRAS will correct each field in error by crossing out the incorrect data and writing in the correction above it. Show Keypunch columns at the top of the report and field titles so that it can be used as a return document.

Logic Tests -

Column 1	= Must be a numeric "1".
Column 2	= Borough - must be 1,2,3,4 or 5.
Column 3-4	= District must be numeric. 01 to 32 plus 75,78,81, 83,91,92,93,94.
Column 5	= Level - must be 1,2,4,5,6,7,8 or 9.
Column 6	= Type - must be 1 or 2.
Column 7-9	= School Code - must be numeric.
Column 10	= Grade Code - must be alpha.
Column 11-16	= Homeroom Class Code - may be alpha, numeric or alpha/numeric.
Column 17to34	= Language Count - numeric or blank.
Column 35	= TMR Class - must be "Y" or "N".
Column 36-37	= Sequence Count 01-99
Column 38	= Language Category - 1 or 2
Column 39	= Language Code - 1-8
Column 40to65	= Hours per Week - blank or numeric if data is present
Column 66	= Supportive Services - a "Y" or "N".
Column 67	= Basic Program - a "X" or blank.
Column 68	= Homeroom Teacher - a "Y" or "N".
Column 69	= Cluster Teacher - a "Y", "N" or a "A".
Column 70	= Subject Teacher - a "Y", "N" or a "A".
Column 71	= Para Professional - a "Y", "N" or a "A".
Column 72	= Pupil Personnel Services - a "Y", "N" or a "A".
Column 73	= English Speaking - a "X" or blank.

Special Tests per record -

If a record is in error due to this level of test, then underline (--) all fields involved on the errorprintout.

1. Columns 40 to 65 contain hours of service (or blanks). If hours are listed, the grand total for all thirteen fields should not exceed 30 hours.

2. If an X is not recorded in column 67, then columns 40-65 should all be blank or zero, and an "N" should be recorded in column 66.

3. If an X is not recorded in column 73, then "Y's" should not be recorded in columns 68-72.

4. Sum the number of pupils listed in columns 17 to 32. This should equal the homeroom register in columns 33-34. Allow a -10% error factor.

5. If column 40-41 is not blank or zero, then columns 42-65 should be blank.

6. If one or more of the following fields is not blank or zero (40-41, 44-53, 64-65), then one or more of the following fields should be "Y" (column 68, 69, 70).

8. If one or more of the following fields is not blank or zero (56-57, 60-61), then one or more of the following fields should be "Y" (68, 69, 70, 71).

M E M O R A N D U M

June 18, 1974

To: Alexander Katz

From: Donald Treiman

Re: Clarification of the Types of Errors Involved in the "Special Tests per Record" Section of the Edit Check, the Possible Causes, and Possible Procedures to be Followed to Resolve the Error.

It should be clear how to correct the logic tests for column 1-73 listed on the first page of the edit program logic (a copy of which is provided). The following comments pertain to the "Special Tests per Record" listed on the second page of the document containing the edit program logic.

1. "Sum of 40 through 65 exceed 30 hours."

If the grand total of hours listed in columns 40 through 65 exceeds 30, the print-out will indicate an error, because the pupil is only in class for 30 hours per week. This type of error might have two causes: (1) the teacher listed the same program under two or more categories and therefore double-counted the program hours, or (2) the teacher listed hours for after-school programs. For example, the teacher may have indicated that a pupil received 60 hours of instruction, because he counted programs both in the Bilingual instruction and in the more specific categories. Alternatively, the teacher might have indicated that the pupil received 35 hours of instruction per week because he was counting after-school as well as regular programs. Contact the teacher and ask him to again indicate which programs the pupil in question is receiving. Make sure that the teacher is not double-counting programs, or listing after-school programs.

2. "Sum of 17 through 32 not within 10 pct of 33-34."

If the number of pupils listed in columns 17 through 32 deviates by more than 10 percent from the total home room register, the print-out will indicate an error, because while small errors might be due to mistakes in addition, errors in excess of

10 percent might indicate the teacher did not properly follow the instructions. For example, the teacher might have marked 35 students in the columns for home room register (column 33-34), but listed only 18 students in columns (17-32) because he thought that only category 1 and 2 students were to be listed in columns 17 through 32, when, in fact, all students were supposed to have been categorized. Contact the teacher and ask him to again supply the information for columns 17 through 34 which was true for his class as of April 30, 1974. Clarify the instructions for him if necessary.

3. "40-41 not blank or zero. 42 thru 65 should be blank or zero."

If the teacher has indicated that a pupil participates in a Bilingual Instruction program, as defined in the instruction sheet, he should not have indicated that the pupil participates in any other program, because all others are covered by the Bilingual Instruction program. If he indicated that the pupil receives both Bilingual Instruction and other programs, the print-out will indicate an error. Contact the teacher and determine whether hours listed under other programs are in addition to those hours listed under Bilingual Instruction programs or whether the same hours have been listed in two different columns. For example, if the teacher has indicated that a pupil has received 15 hours of Bilingual Instruction and 5 hours of Comprehensive Reading, it is possible that the pupil is receiving 20 hours of programs per week, 15 of which were listed under Bilingual Instruction and 5 of which were counted as Comprehensive Reading; or it might be that the pupil only patticipated in 15 hours of programs, but, since 5 of these were Comprehensive Reading, the teacher listed these 5 hours both under Bilingual Instruction and under Comprehensive Reading. You should determine the total number of hours of programs the pupil participates in each week and list them all as Bilingual Instruction in column 40.

4. "72 not Y. 66 should equal N."

If the teacher did not mark a "Y" in column 72, this indicates that no bilingual personnel are available to give Supportive Services. Thus column 66 should be marked "N." If the teacher did not mark a "Y" in column 72 and did mark a "Y" in column 66, the print-out will indicate an error. Contact the teacher and determine whether or not the pupil is receiving Supportive Services. It may be for example that the pupil was receiving Supportive Services, but the teacher did not bother to finish the questionnaire for that pupil or for some reason the teacher felt that the personnel providing the services did not belong in any of the categories in the personnel services section of the questionnaire. If the pupil is receiving Supportive Services as defined in the instruction sheet for the survey, you should mark a "Y" in column 72.

5. "40-41 or 44-45, or 64-65, not blank or zero. 68 and/or 69 and/or 70 should be Y."

If the teacher has indicated that a pupil is receiving programs which by definition can only be given by a bilingual teacher, namely, Bilingual Instruction (40-41), Language Arts (44-45), and Orientation Class in Native Language (64-65), when he should have marked a "Y" in at least one of the columns in the personnel services section of the survey indicating that the pupil was exposed to a bilingual teacher, namely, columns 68, 69, 70. If non-zero numbers have been entered in either columns 40-41, 44-45, or 64-65, and if 68, 69 and 70 are blank or zero, the print-out will indicate an error. Contact the teacher and determine whether the pupil is exposed to any of these programs along with the bilingual teachers needed to conducted them. This error might possibly have been caused by a teacher's failure to understand that the programs in question required bilingual teachers, or for some reason he might have felt that the bilingual teachers giving the program did not fall into any of the categories in the personnel services section of the questionnaire, or, finally, he might simply not have bothered to complete the questionnaire for that pupil. Resolve the inconsistency so that the teacher has indicated either that the pupil is receiving the programs and is exposed to bilingual teachers or that the pupil is not receiving the programs under question. Read to the teacher the definitions of the programs under question from the instruction sheet for the survey if you think that this will be helpful.

6. "56-57 or 60-61 not blank or zero. 68 and/or 69 and/or 70 and/or 71 should be Y."

If the teacher has indicated that a pupil is receiving Subject Areas with Reinforcement (56-57) or Comprehensive Reading with Reinforcement (60-61) and also indicated that the pupil is not exposed to any of the personnel required in the definitions on the survey instructions to conduct them, namely, bilingual teachers or paraprofessionals, columns 68, 69, 70, 71, then the print-out will indicate an error. Contact the teacher and ask him whether or not the pupil receives these programs conducted by the necessary personnel. Read to him the definitions of the programs in question from the instruction sheet if you think this will be helpful. Resolve the discrepancy so that the teacher has indicated either that the pupil is receiving these programs taught by the appropriate personnel, or that the appropriate personnel are not available and that he does not receive any of the programs under question.

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF THE CHANCELLOR

May 17, 1974

TO: COMMUNITY SCHOOL BOARD MEMBERS, EXECUTIVE DIRECTORS, COMMUNITY SUPERINTENDENTS, STAFF SUPERINTENDENTS, HEADS OF BUREAUS AND PRINCIPALS, COORDINATORS, AND ALL HOMEROOM TEACHERS OF DAY SCHOOLS

Ladies and Gentlemen:

As part of a pending lawsuit, the Federal Court in the Southern District of New York has directed that a survey be conducted concerning the educational services to pupils with difficulty in the English language. According to the court's directive, the survey is to include information concerning "the number and location of pupils involved, the variety and scope of programs provided, and the availability of instructional personnel."

The attached survey material was prepared with the cooperation of all the parties to this lawsuit. It is important to all the parties that the forms be completed carefully and accurately. Spot checks of randomly selected questionnaires will be conducted.

The names of the students will be used only in the context of pending federal litigation and will not be disclosed to the public or used for any other purpose.

In order to comply with the very strict deadlines which the court has imposed, it is critical that the attached survey forms be received by the Data Processing Unit no later than May 28, 1974.

We are very much aware that this puts you and your staff under severe time constraints but I cannot stress too much the importance of adhering to these deadlines. Your cooperation in collecting this information is needed and greatly appreciated.

PROCEDURES TO FOLLOW

The envelope for each school contains the following:

1. A survey form for each homeroom class teacher
2. An instruction sheet for each homeroom teacher

Each principal or school head is responsible for the completion and return of a survey form for each homeroom teacher. For those homeroom classes with no children in Language Categories 1 or 2, the teacher will complete the heading on the form (items 2 through 35), indicate "NONE" under Pupil Data, and return the form to the principal.

When the forms have been completed according to the instructions provided, the principal is requested to verify the following:

1. A form has been completed by every homeroom teacher.
2. Items 2 through 35 have been entered on every form.
3. Information has been provided on the survey forms for all pupils in Categories 1 and 2.

After verification, the principal is requested to arrange for delivery of the forms no later than noon on May 24, 1974 to the following locations:

SCHOOL LOCATION	DELIVER TO
Elementary, Junior High and Intermediate Schools	District Office
High Schools	Assistant Superintendent in Charge
Special Education Schools	Executive Director

The High School Superintendent, and the Executive Director of Special Education Schools will deliver the forms to the Bureau of Educational Program, Research and Statistics, Room 728.

Forms will be picked up from District Offices by car on the afternoon of May 24, 1974 for delivery to the Bureau of Educational Program, Research and Statistics, Room 728.

Community Superintendents, the Executive Director for Special Education, and the High School Staff Superintendents will be provided with additional forms, in case they are needed by the schools.

If additional information is required, Community District Schools should call their PEPRAS District contact person. High Schools and Special Education Schools should call Mr. Charles Elterman, at 596 - 3981.

Your cooperation in the accurate collection and accounting of these data is appreciated.

Sincerely,

IRVING ANKER
Chancellor

FOR PUPILS WITH ENGLISH LANGUAGE DIFFICULTY (CATEGORY 1 AND 2 ONLY)

GENERAL PROCEDURES:

One form is provided for all school levels; however, in view of the differences in existing pupil programming, the procedure for completing the data required may vary according to school level. The procedure is as follows:

Elementary Schools - Each classroom teacher will complete the form for his/her class.

Junior High and Intermediate Schools - Each homeroom teacher will complete the form for the class. Where additional information is required, the teacher will consult with the appropriate staff member.

High Schools - The homeroom teacher or equivalent will complete the survey form up to and including item 39. The grade advisor will complete the remainder of the form for those pupils whose programs are within his or her responsibility. The grade advisor will consult with other appropriate staff personnel. Coordination of all data forms is the responsibility of the program coordinator.

GENERAL INSTRUCTION: ALL ITEMS IN THIS SURVEY PERTAIN TO THE CURRENT TERM.

SPECIFIC INSTRUCTIONS:

Item 1 - This has been inserted for you.

Item 2 - Place the appropriate number in the box for Borough listed below:

Manhattan 1 Bronx 2 Brooklyn 3 Queens 4 Richmond 5

Items 3 - 4 Place the appropriate number in the box for District. Right justify your entry. The last digit must be in the far right hand square. Any empty square remaining on the left should be filled in with a zero. See example below:

District 3 = | 0 | 3 |

Item 5 - Place the appropriate number in the box for level code.

Elementary	1	400, 700	6
Junior High	2*	Elementary Deaf	7
Intermediate School	2*	Junior High Deaf	8
Academic High School	4	Special Education	9
Vocational High School	5		

*NOTE: Junior High and Intermediate Schools both use Code 2. Code 3 is not used.

Item 6 - Place the appropriate number in the box for Type School

Title I School 1
Non-Title I School 2

Items 7-9 Place the appropriate number in the box for your school. The attached sheet indicates the codes for high school. Right justify your entry. The last digit must be in the far right hand square. Any empty squares remaining on the left should be filled in with zeroes. See example below:

P.S. 1 = | 0 | 0 | 1 |

Item 10 Place the appropriate letter code in the box for grade. See code below:

GRADE	CODE	GRADE	CODE	GRADE	CODE
Post-Graduate	A	7, 7 SPE	I	Jr. Guidance	R
12	B	7-8 SP(2yr)	J	KG	S
11	C	6, 6 SPE	K	PRE-KG	T
10	D	6-7 SP(2yr)	L	INST. 7+	U
9, 9 SPE	E	5	M	INST. 1-6	V
9 SP (2yr)	F	4	N	Phys. Hdcp.	W
8, 8 SPE	G	3	O	Ment. Hdcp.	X
8, SP (2yr)	H	2	P	Emot. Hdcp.	Y
		1	Q	Dblo Hdcp.	Z

Items 11-16 Place the homeroom class code in the squares. Use the designation on the school organization sheet. Right justify your entry.

Items 17-34 In each box place the number of pupils in your class who fall within the corresponding Language Group Code (See definition in the top right-hand corner). The total number in boxes 33 and 34 should agree with your class register.

Item 35 Indicate whether homeroom class is for Trainable Mentally Retarded. See code below:

Yes	Y
No	N

Items 36-37 These numbers are listed in sequential order. In the column headed Pupil Name, place the names of all pupils who fall within the categories #1 and #2. Placement is to be based on the individual pupil's ability to speak English, as indicated in the top left-hand box, Language Category Code.

Item 38 Circle the appropriate language code, 1 or 2.

Item 39 Enter appropriate Language Group Code - (see code definition in top right-hand corner)

Items 40-65 Enter the number of hours per week (round to the nearest hour). Please read the program definitions carefully. If a program fits one of the definitions, include it regardless of the particular name by which it is known in your school or district. If a program could fit under more than one category, report it only under the one category which fits best. If the student does not participate in the program at all, leave the items blank.

Do not duplicate the hours of service received. For example, if a student participates in a bilingual program, do not record that he receives instruction in subject areas in his native language. (Note asterisk under Bilingual Instruction Program).

If you are not sure how many hours a pupil participates in a given program, enter your best estimate.

The definitions of these programs are listed below:

GENERAL DEFINITION

Fluency is the ability to use the native language of the pupil accurately and without hesitation on all levels normally pertinent to the effective instruction of and communication with the pupil.

Items 40-41 BILINGUAL INSTRUCTION PROGRAM

A bilingual instructional program includes all the following components: instruction in the native language; instruction in English as a second language; utilization of the native language as a medium of instruction in subject areas; instruction designed to develop the child's awareness of his own cultural heritage. Indicate the hours of instruction the pupil receives in this program.

*If a student participates in a bilingual program, leave items 42-65 blank.

Items 42-43 ENGLISH AS A SECOND LANGUAGE (ESL)

A special instructional program specifically designed for students with English language difficulties intended for the development and mastery of English language skills with emphasis on aural-oral language development. Indicate the hours of instruction the pupil receives in this program.

(Continued on next page)

Items 44-45 LANGUAGE ARTS TAUGHT IN NATIVE LANGUAGE

An instructional program designed for the maintenance and development of native language skills (listening, speaking, reading and writing) with the child's native language used as the medium of instruction by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this program. Do not include instruction in a foreign language, such as Basic French, Basic Spanish, etc.

Items 46-47 MATHEMATICS

The utilization of the native language of the pupil as a medium of instruction in the teaching of Mathematics by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject area.

Items 48-49 SCIENCE

The utilization of the native language of the pupil as a medium of instruction in the teaching of science by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject area.

Items 50-51 SOCIAL STUDIES

The utilization of the native language of the pupil as a medium of instruction in the teaching of social studies by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject area.

Items 52-53 FINE ARTS

The utilization of the native language of the pupil as a medium of instruction in the teaching of fine arts by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject.

Items 54-55 CULTURAL STUDIES AND HERITAGE PROGRAM

An instructional program in which pupils are provided with the opportunity to learn about their own cultural heritage.

Items 56-57 SUBJECTS AREAS TAUGHT IN ENGLISH WITH REINFORCEMENT IN NATIVE LANGUAGE

An instructional program in which English is utilized as the primary medium of instruction with reinforcement provided in the native language of the pupil for clarification purposes.

Items 58-59 COMPREHENSIVE READING PROGRAM

Comprehensive reading instruction designed on a programmed, sequential basis to develop English reading skills, with English as the medium of instruction.

NOTE: DISTAR, SRA, Miami Linguistics, Merrill Linguistics, Words in Color, Dimensions, etc., are examples of Comprehensive Reading Programs.

Items 60-61 COMPREHENSIVE READING PROGRAM WITH REINFORCEMENT

Comprehensive reading instruction designed on a programmed, sequential basis to develop English reading skills, with English as the medium of instruction and with reinforcement in the child's native language.

NOTE: DISTAR, SRA, Miami Linguistics, Merrill Linguistics, Words in Color, Dimensions, etc., are examples of Comprehensive Reading Programs.

(Continued on Reverse Side)

Items 62 - 63 ORIENTATION CLASSES

An introductory program for non-English speaking children, which gives them some facility in the use of English, utilizing English as the medium of instruction.

Items 64 - 65 ORIENTATION CLASSES IN NATIVE LANGUAGE

An introductory program for non-English speaking children, which gives them some facility in the use of English, utilizing the child's native language as the medium of instruction by a teacher who is fluent in the child's native language.

Item 66 SUPPORTIVE PUPIL PERSONNEL SERVICE PROGRAM

A program which provides service by any one or more of the following: bilingual guidance counselor; bilingual teacher in school and community relations; bilingual paraprofessionals. Please circle "Y" if the pupil receives any of the above services. Circle "N", if he does not.

Item 67 If the student participates in the basic educational program only, please circle the "X"; otherwise, leave this column blank. If you do not circle the "X", you should have indicated hours or a "YES" for at least one of the preceding fourteen programs listed in items 40 - 66.

INSTRUCTIONS FOR COMPLETING ITEMS UNDER PERSONNEL SERVICES

Item 68 Circle "Y", if you, the homeroom teacher, are fluent in the pupil's native language. Circle "N" if you are not fluent in the pupil's native language.

Item 69 Circle "Y" if the pupil has a cluster teacher who is fluent in the pupil's native language. If the pupil has cluster teachers, but none of them is fluent in the pupil's native language, circle "N". If the pupil has no cluster teachers, circle "A".

Item 70 Circle "Y" if the pupil has at least one subject teacher who is fluent in the pupil's native language. If the pupil has subject teachers, but none of them is fluent in the pupil's native language, circle "N". If you are the pupil's only subject teacher, circle "A".

Item 71 Circle "Y" if the pupil has at least one paraprofessional who is fluent in the pupil's native language. If the pupil has paraprofessionals, but none of them is fluent in the pupil's native language, circle "N". If the pupil has no paraprofessionals, circle "A".

Item 72 Circle "Y"if the pupil has received pupil personnel services in the pupil's native language. If the pupil is exposed to pupil personnel services but not in his native language, circle "N". If the pupil has not received pupil personnel services, circle "A".

Item 73 Circle "X" if the student is exposed to English speaking personnel only; otherwise, leave this column blank. If you do not circle the "X", you should have circled a "Y" for at least one of the personnel services.

LANGUAGE CATEGORY CODE

CATEGORY 1
Pupils who speak English hesitantly at times, or whose regional or foreign accents indicates the need for remedial work in English and/or speech.

CATEGORY 2
Pupils who speak little or no English, whose regional or foreign accents make it impossible for them readily to be understood.

Board of Education of the City of New York

SURVEY OF EDUCATIONAL SERVICES FOR PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

(CATEGORY 1 and 2 ONLY)

HOMEROOM TEACHER QUESTIONNAIRE

LANGUAGE GROUP CODE

1 – English speaking who are not Puerto Ricans
2 – Puerto Rican
3 – Spanish speaking but not Puerto Ricans
4 – Chinese speaking
5 – Italian speaking
6 – Greek speaking
7 – French speaking including Haitians
8 – Non English speaking not in other groups

1	Borough	District	Level	Type	School	Grade	Class	Homeroom Code	English Speaking Who Are Not Puerto Rican	+ Puerto Rican	+ Spanish Speaking But Not Puerto Rican	+ Chinese Speaking	+ Italian Speaking	+ Greek Speaking	+ French Speaking Including Haitians	+ Non English Speaking Not In Other Groups	= Total Homeroom Register (As of 4:00 P.M.)	IS THIS A TMR CLASS? (Circle One)
1	2	3 4	5	6	7 8 9	10	11 12	13 14 15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	Y or Yes N or No 35

SEQ. NO.	PUPIL NAME (CATEGORY 1 and 2 ONLY)	PUPIL DATA	PROGRAM SERVICES — HOURS PER WEEK																PERSONNEL SERVICES — ARE THESE PERSONNEL FLUENT IN THE PUPIL'S NATIVE LANGUAGE?						
		Language Category Code (Circle One)	Language Group Code	Bilingual Instruction (Hrs.)	English As Second Language (Hrs.)	Language Arts (Hrs.)	Mathematics (Hrs.)	Science (Hrs.)	Social Studies (Hrs.)	Fine Arts (Hrs.)	Cultural Studies (Hrs.)	Subject Areas With Reinforcement (Hrs.)	Corrective Reading (Hrs.)	Comprehensive Reading With Reinforcement (Hrs.)	Orientation Classes (Hrs.)	Orientation Classes In Native Lang. (Hrs.)	Supportive Services (Circle One)	Basic Educational Program Only	Homeroom Teacher (Circle One)	Cluster Teacher (Circle One)	Substitute Teacher(s) (Circle One)	Para-Professional (Circle One)	Pupil Personnel Services (Circle One)	English Speaking Personnel Only
36 37	PRINT LAST NAME FIRST NAME MIDDLE INITIAL	38	39	40 41	42 43	44 45	46 47	48 49	50 51	52 53	54 55	56 57	58 59	60 61	62 63	64 65	66	67	68	69	70	71	72	73
01		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
02		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
03		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
04		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
05		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
06		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
07		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
08		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
09		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
10		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
11		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
12		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
13		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
14		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X
15		(1) (2)															Y N	X	Y N	Y N A	Y N A	Y N A	Y N A	X

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Instructions for Conducting Validity Check

The purpose of this assignment is to gather information which will be used to assess the accuracy of teacher's reports in the Survey of Pupils with English Language Difficulty. In this survey, which has just been carried out, every class room teacher (in elementary schools) or home room teacher (in intermediate and high schools) has been asked to complete a form by listing all pupils with English language difficulty and indicating for each pupil what specialized services he receives. Because the survey is being conducted in the context of a Federal court case, it is particularly important to assess the accuracy of the information garnered in the survey. You will be asked to go to a number of schools and in each school to obtain information for a sample of (usually) 18 selected pupils by checking with appropriate school personnel. Specific instructions are provided below. It is important that you follow these instructions exactly.

Specific instructions:

1) You will be assigned approximately six schools to visit during Monday through Wednesday, June 3-5. For each school, you will be given a packet of xerox copies of six completed questionnaires, one for each of six class rooms, and also a blank form. Check to see that each packet contains these materials. You should also have a copy of the instructions given to the teachers

who completed the questionnaires.

2) For each questionnaire, cross out with a permanent marker all but the first, the middle, and the last name listed under the heading PUPIL NAME. For example, if 13 names are listed on the questionnaire, cross out all but the 1st, the 7th, and the 13th. (Find the middle name by dividing by two and taking the number you get or the next higher whole numer if you come out with a fraction). If there are three or fewer names on the form, do not cross out any of them.

3) Now for each school, complete the blank form through the SEQUENCE NUMBER:

a) Fill out the first nine boxes by copying the information from one of the completed questionnaires. All the questionnaires in a given school should agree with respect to these items. If they do not, inform your supervisor.

b) For each class room, copy the grade code (box 10) and the Home room code (boxes 11-16) from the original questionnaire.

c) List the names of the first, middle, and last pupil from the completed questionnaires (the names you have not crossed out). After each name, copy the sequence number from the sequence number listed in columns 36 and 37 of the completed questionnaire. IT IS EXTREMELY IMPORTANT THAT THIS INFORMATION BE COMPLETED WITH PERFECT ACCURACY, SINCE THIS IS THE ONLY WAY WE HAVE OF MATCHING INFORMATION FOR

c) (continued) PARTICULAR PUPILS WITH THE INFORMATION OBTAINED IN THE ORIGINAL SURVEY.

4) Read the instruction sheet for teachers on how to complete the questionnaire. Pay particular attention to the instructions regarding PROGRAM SERVICES (Items 40-67) since this is the part of the questionnaire which will concern you.

5) You are now ready to go to the school. We have scheduled your work load on the assumtion that you can visit two schools per day. If this proves impossible, check with your supervisor. Please visit schools in the order they have been assigned to you, since our sampling procedure requires that if any schools are omitted they be the ones at the bottom of the list. That is, please visit all the schools on the first group before visiting any in the second group.

6) When you arrive at a school, ask the Principal to provide you with a list of names and room numbers of all the personnel in the school who are involved in providing to pupils with English language difficulty the PROGRAM SERVICES described in the Instructions to the original questionnaire.

7) Interview each of the staff members listed by the Principal. Show to each person you interview the form on which you have copied the names of 18 pupils. Ask him/her to indicate for each pupil on the form the number of hours of involvemnent in any program he/she provides for the pupil. Copy this number on the form. If more than one staff member indicates involvement with the pupil, add the total number of hours unless the two

staff members are referring to the same program which is jointly taught. Each time you fill in the number of hours, circle the "I" in the box below the hours box to indicate that participation has been independently verified.

8) After completing interviews with all the personnel listed by the principal, AND ONLY AFTER DOING THIS, compare the new information you have obtained with the information contained on the original six questionnaires. If any PROGRAM SERVICE is listed for a pupil on an original questionnaire but not on the new form, interview the class room teacher who completed the original form. Note: it does not matter whether the number of hours agrees on the two forms--your only concern should be cases where a service is indicated on the original questionnaire but not indicated at all on the new form.

When you interview the class room teacher, do not show him/her the original questionnaire or indicate that you have this information. Simply ask, for each program mentioned on the original questionnaire but not on the new form, the name of the staff member providing the indicated service, e.g., "Who teaches English as a Second Language to Diego Rivera?" The next step depends upon the teacher's response:

If the teacher indicates that he/she provides the service, ask for the number of hours the service is provided, and record this on the new form. Also circle the "U" on the form, which indicates an unconfirmed report by the class room teacher.

If the teacher indicates that no service is offered, enter "0" for the number of hours and circle the "U" on the form.

If the teacher names another staff member, go to that person and ask for the number of hours of participation. Do this even if it means going back to a staff member you have already talked to. Record the number of hours and also circle the "I" on the form, which indicates independently confirmed report. If the staff member indicates that the pupil does not receive that service from him, record zero for the number of hours and circle "I".

If either the class room teacher or another teacher named by the class room teacher cannot be located, circle the "N" on the form, which indicates that personnel needed for verification are not available.

9) Check over the form you have completed:

a) All the preliminary information must be completely filled in, up to item 18.

b) Where hours are listed, either "I", "U", or "N" must be circled.

c) Wherever hours are listed on an original questionnaire "I", "U", or "N" must be indicated on the new form; and if "I" or "U" is indicated, hours must be indicated (zero hours is acceptable)

IF THE HOMEROOM Teacher does not know who teaches "X" and no one else knows code 99 in the hours' box.

Borough | District | Level | Type | School

1 | | | | | | | | | |

VALIDITY CHECK

MAY LANGUAGE SURVEY

PUPIL DATA

Bilingual Instruction (Hrs.) | English As Second Language (Hrs.) | Language Arts (Hrs.) | Mathematics (Hrs.) | Science (Hrs.) | Social Studies (Hrs.) | Fine Arts (Hrs.) | Cultural Studies (Hrs.) | Subject Area With Reinforcement (Hrs.) | Comprehensive Reading (Hrs.) | Comprehensive Reading With Reinforcement (Hrs.) | Orientation Classes (Hrs.) | Orientation Classes In Native Lang. (Hrs.)

Grade | Homeroom Class Code | SEQ. NO | PRINT LAST NAME | FIRST NAME | MI

19 20 | 21 22 | 23 24 | 25 26 | 27 28 | 29 30 | 31 32 | 33 34 | 35 36 | 37 38 | 39 40 | 41 42 | 43 44

45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57

I U N

Instructions for drawing sample of classrooms

The 20 monitors should each be assigned 4 schools from the list of 80 (group 1). In addition they should be assigned 2 more schools from the list of 40 (group 2). Since the first 4 are to be completed by each monitor before attempting the last 2, the sample of 80 should be drawn immediately. The sample of 40 could be delayed a day or two, if necessary.

The procedure for choosing the schools is the same for both the sample of 80 and the sample of 40. Since order within each sample is unimportant, convenience can dictate the order in which each sample is drawn.

The specific instructions for choosing classrooms from each school are as follows:

1.) Locate the set of questionnaires returned by the classroom teachers. If data from a school are not yet available, two steps should be taken: (1.) make a note of the school number (including district) and the reason for exclusion; (2.) draw a school from the replacement list to take its place. Take schools from the replacement list in the order listed. Cross off the list any school(s) which are sampled to avoid duplication. If data from the replacement school are not available, then take the next school on the list.

2.) Count the number of questionnaires. Your count should agree with any listing you have of the total number of classrooms or homerooms in a school. Keep a record of any discrepancies larger than four rooms.

3.) Divide the questionnaires for each school into six approximately equal piles. For example, if there are 47 forms for a school, you would divide them into six piles with approximately seven or eight forms in each. Look through each pile of forms and take the first one which has at least one pupil name listed. If none of a group of forms have any names listed then choose an extra form from the next group. If two groups in a pile have no names listed, then choose three if possible from the following group and so on. You should pick six forms, all with at least one listing from every school if possible. If there are only six (or fewer) forms with names listed then you should make copies of all of them. If there are no names listed on any of the forms for a particular school, then a new school should be drawn from the replacement list as described in 1.).

4.) Make a xerox copy of the first page of each of these questionnaires (the page containing the header information, and containing pupil data if only one side is completed). Then return the originals to the stack.

5.) Add a copy of the blank form for the validity check to each set of six questionnaires and clip them all together.

SECOND REPORT

ON A

SURVEY OF EDUCATIONAL SERVICES FOR HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY, CONDUCTED IN THE NEW YORK CITY SCHOOLS, MAY 1974

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July 15, 1974

PREFACE

This second report completes our analysis of a "Survey of Educational Services for Hispanic Pupils with English Language Difficulty" conducted in the New York City schools in May, 1974. It should be read in conjunction with our first report, presented July 1, 1974.

The second report accomplishes three tasks. First, additional analytic tables on the services available to pupils with English language difficulty are presented and discussed, in the body of the report. Second, two Appendices consider problems of data quality. Our general conclusion is that the data presented in the first report are fundamentally accurate, and hence that the statements made in that report need not be modified in any important way. This conclusion also legitimates use of the survey data to describe individual schools, provided appropriate caution is exercised. This is the third task of the present report. Appendices III and IV present extensive additional tabulations, first on a District by grade basis (in Appendix III) and then on a school by school basis within each District (in Appendix IV).

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ADDITIONAL SUBSTANTIVE ANALYSIS AND COMPARISONS WITH DATA PRESENTED IN PRELIMINARY REPORT

Introduction. In our first report on the results of the "Survey of Educational Services for Pupils with English Language Difficulty" we estimated the number and percentage of Hispanic pupils in the New York schools who have difficulty speaking English and then, restricting ourselves to pupils with difficulty, estimated the number and percentage receiving various specialized services designed to provide instruction in Spanish or to improve English language competence. Due to the limited time we had in which to conduct our analysis, and the complexity of the data processing procedures, we considered our conclusions tentative, reserving the perogative of modifying them after further examination of the data.

We have now conducted further analysis, and on this basis are prepared to confirm the conclusions of our first report with only minor modifications.

First, we have shown (in Appendix I of the present report) that inconsistencies and omissions remaining in the data have little effect on results. In the Appendix we examine a sample of data which was subjected to the editing process. Comparing tabulations based on the data before editing with corresponding tabulations based on the edited data, we find very few differences. There is a very slight tendency for the unedited data to exhibit a higher percentage receiving full bilingual instruction and a lower percentage receiving

no specialized services, but the percentages in both cases change less than five points.

Second, we have shown (in Appendix II of the present report) that teachers' reports on the services received by pupils with English language difficulty are, on the average, highly accurate. For a representative sample of pupils in the City we made anindependent assessment of the number of services received by pupils and the amount of participation in each program. There were essentially no differences between the teachers' reports and those made by the independent monitors (which we take as the standard) with respect to the percentage of pupils participating in each program and only minor differences with respect to the average number of hours per week of services received.

Taken together, the analyses reported in Appendices I and II give us considerable confidence in the essential validity of the results reported on July 1 and also those reported here. There is only one exception, which is not of large consequence but is none the less corrected here. Some concern has been expressed about the possibility that teachers reported pupil participation both in full bilingual programs and in specific individual programs, contrary to instructions (they were asked to ignore the individual programs for any pupil who received full bilingual instruction). Examination of data not reported here confirms that that was apparently the case in some instances, although the magnitude of the double reporting was not large. Therefore, to correct any over-statement of the extent of pupil participation in remedial services that,

is created by a double count, we simply assumed that any pupil counted by his teacher as participating in a full bilingual program did in fact do so. Then, in computing the percentage participating in each of the other individual services, we did not count any pupil who was counted as receiving full bilingual instruction, no matter how many hours of participation in individual programs his teacher indicated. While this has the danger of allocating to full bilingual programs pupils who actually had only some components, the evidence of Appendix I suggests that the danger is hardly large: the unedited data where this assumption was made show less than five percent more pupils receiving full bilingual programs than the fully edited data. And the clear advantage is that double-counting going the other way--in which individual programs as well as full bilingual instruction are counted--is removed.

In the following tables we present material similar to that presented in Tables 9 through 14 of the first report. There are two differences. First, all the tables presented here make the above distinction between pupils with full bilingual instruction and other pupils, to avoid double counting. Second, various summary categories not appearing in the July 1 tables are added.

Percentage with various services. Tables 1 through 3 are similar to Tables 9 through 11 in the July 1 report. And the conclusions to be drawn from the two sets of tables are virtually identical, with one exception. The extent of

TABLE 1

NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.

POPULATION GROUP = TOTAL HISPAN 1 + 2

ROWS = GRADE.

COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILING-UAL PROGRAM	SUBJECT INSTR	SPECIAL ENGLISH INSTR	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM
ALL GRADES	67295	8736	20051	6165	30050	14699	4384	3869	3153	3313
	100.0	13.0	29.8	9.2	44.7	21.8	6.5	5.7	4.7	4.9
GRADE 12	707	213	55	172	318	232	73	90	85	111
	100.0	30.1	7.8	24.3	45.0	32.8	10.3	12.7	12.0	15.7
GRADE 11	1291	356	200	213	551	419	160	82	86	82
	100.0	27.6	15.5	16.5	42.7	32.5	12.4	6.4	6.7	6.4
GRADE 10	2634	385	753	610	1366	1064	292	285	339	291
	100.0	14.6	28.6	23.2	49.6	40.4	11.1	10.7	12.9	11.0
GRADE 9	3596	688	947	836	1570	1049	522	473	420	417
	100.0	19.1	26.3	23.2	43.7	29.2	14.5	13.2	11.8	11.6
GRADE 8	3353	624	1257	417	1043	580	290	302	280	289
	100.0	18.6	37.5	12.4	31.1	17.3	8.7	9.0	8.4	8.6
GRADE 7	4776	601	1539	466	1167	637	347	395	372	344
	100.0	16.1	41.3	12.5	31.3	17.1	9.3	10.6	10.0	9.2
GRADE 6	3860	295	1147	469	1917	787	353	342	241	298
	100.0	10.3	29.7	12.2	49.7	20.4	9.1	8.9	6.2	7.7
GRADE 5	4746	466	1218	365	2688	1152	265	245	138	146
	100.0	9.8	25.5	7.7	56.4	24.2	5.6	5.1	2.9	3.1
GRADE 4	5425	468	1526	336	2984	1163	250	230	141	131
	100.0	8.6	28.1	6.2	55.0	21.4	4.6	4.2	2.6	3.3
GRADE 3	6725	573	2088	387	3246	1320	295	242	141	133
	100.0	8.5	31.0	5.8	48.3	19.6	4.4	3.6	2.1	2.0
GRADE 2	7793	628	2860	382	3622	1752	283	210	129	209
	100.0	8.1	36.7	4.9	46.5	22.5	3.6	2.7	1.7	2.7
GRADE 1	10371	813	3896	463	4738	2460	376	280	264	208
	100.0	7.8	37.6	4.5	45.7	23.7	3.6	2.7	2.0	2.0
KINDER-GARTEN	8596	1643	1622	532	3546	1595	382	315	313	294
	100.0	19.1	18.9	6.2	41.3	18.6	4.4	3.7	3.6	3.4
PRE-K	998	128	133	55	168	97	55	92	19	19
	100.0	12.8	13.3	5.5	16.8	9.7	5.5	5.2	1.9	1.9
OTHER	2559	675	376	330	885	202	327	275	210	230
	100.0	26.5	14.7	12.9	34.6	7.9	12.8	10.7	8.2	9.0

TABLE I

(Continued)

	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	CR CLA NAT LAN PROGRAM	SUPPORT SERVICE
ALL GRADES	2063 3.1	8149 12.2	5723 8.5	19548 29.0	5436 8.1	887 1.3	805 1.2	43423 64.5
GRADE 12	5 0.7	28 4.0	11 1.6	124 17.5	8 1.1	1 0.1	71 10.0	242 34.2
GRADE 11	41 3.2	39 3.0	76 5.9	159 12.3	14 1.1		11 0.9	531 41.1
GRADE 10	203 7.7	85 3.2	123 4.7	335 12.7	39 1.5	20 0.8	162 6.2	1494 56.7
GRADE 9	206 5.7	147 4.1	293 8.1	592 16.5	158 4.4	69 1.8	157 4.4	1801 50.1
GRADE 8	116 3.5	112 3.3	173 5.2	484 14.4	161 4.8	41 1.2	24 1.0	1963 58.5
GRADE 7	259 8.0	164 4.4	283 7.6	626 16.8	261 7.0	70 1.9	43 1.2	2310 62.0
GRADE 6	159 4.1	603 15.6	429 11.1	1333 34.5	544 14.1	135 3.6	47 1.2	2696 69.9
GRADE 5	153 5.2	446 21.0	441 9.7	2012 42.2	513 10.8	69 1.4	45 0.9	3014 63.2
GRADE 4	60 1.9	1014 18.7	479 9.0	2273 42.0	537 9.9	28 0.5	55 1.1	3564 65.9
GRADE 3	150 2.4	1156 17.2	591 8.8	2549 37.9	633 9.3	19 0.3	18 0.3	4579 68.1
GRADE 2	117 1.5	1164 14.9	619 7.9	2628 33.7	745 9.6	108 1.4	22 0.3	5695 73.1
GRADE 1	172 1.7	1319 12.7	805 7.8	3321 32.0	947 9.1	99 1.0	38 0.4	7482 72.1
KINDER-GARTEN	147 2.3	1053 12.2	996 11.6	2279 26.5	633 7.4	136 1.6	54 0.6	5652 81.6
PRE-K	14 1.4	33 3.3	163 16.3	21 2.1	20 2.0	30 3.0	12 1.2	857 85.9
OTHER	183 7.2	259 10.1	191 7.5	698 27.3	195 7.6	39 1.5	2 0.1	1318 51.5

TABLE

NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.

POPULATION GROUP = TOTAL HISPANIC 1

ROWS = GRADE

COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILINGUAL PROGRAM	SUBJECT INSTR	SPECIAL ENGLISH INSTR	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM
ALL GRADES	43327 100.0	6890 15.9	9664 22.3	3712 8.6	21132 48.8	8982 20.7	2663 6.1	2285 5.3	1721 4.0	1933 4.5
GRADE 12	522 100.0	136 26.0	37 7.1	90 17.2	216 41.4	135 25.9	60 11.5	25 4.8	21 4.0	41 7.9
GRADE 11	929 100.0	277 29.8	103 11.1	150 16.1	410 44.1	290 31.2	111 11.9	51 5.5	54 5.8	53 5.7
GRADE 10	1509 100.0	281 18.6	259 17.2	380 25.2	854 56.6	640 42.4	158 10.5	244 16.2	215 14.2	200 13.3
GRADE 9	2154 100.0	575 26.7	278 12.9	441 20.5	964 44.8	486 22.6	280 13.0	272 12.6	235 10.9	247 11.5
GRADE 8	2188 100.0	566 25.9	589 26.9	253 11.6	717 32.8	350 16.0	177 8.1	177 8.1	144 6.6	184 8.4
GRADE 7	2112 100.0	531 25.1	582 27.6	245 11.6	746 35.1	306 14.5	204 9.7	199 9.4	177 8.4	192 9.1
GRADE 6	2567 100.0	356 13.9	545 21.2	326 12.7	1393 54.3	413 16.1	244 9.5	228 8.9	165 6.4	199 7.8
GRADE 5	3453 100.0	413 12.0	727 21.1	222 6.4	2017 58.4	714 20.7	160 4.6	146 4.2	60 2.6	97 2.8
GRADE 4	3911 100.0	392 10.0	898 23.0	225 5.8	2262 57.8	742 19.0	159 4.1	145 3.7	74 1.9	109 2.8
GRADE 3	4722 100.0	494 10.5	1053 22.3	268 5.7	2588 54.8	932 19.7	191 4.0	136 2.9	52 1.1	44 0.9
GRADE 2	5505 100.0	531 9.6	1633 29.7	286 5.2	2802 50.9	1237 22.5	219 4.0	152 2.8	96 1.7	161 2.9
GRADE 1	6401 100.0	649 10.1	1757 27.4	291 4.5	3330 52.0	1473 24.0	260 4.1	177 2.8	150 2.3	128 2.0
KINDER-GARTEN	4656 100.0	997 21.4	741 15.9	251 5.4	1960 42.1	864 18.6	171 3.7	143 3.1	126 2.7	123 2.7
PRE-K	449 100.0	70 15.6	63 14.0	24 5.3	63 14.0	36 8.0	24 5.3	23 5.1	6 1.3	6 1.3
OTHER	1783 100.0	510 28.6	229 12.8	183 10.3	644 36.1	154 8.6	180 10.1	146 8.2	91 5.1	126 7.1

TABLE 2

(Continued)

	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	CR CLA NAT LAN PROGRAM	SUPPORT SERVICE
ALL GRADES	1187 2.7	6014 13.9	3604 8.3	14737 34.5	3627 8.4	445 1.0	388 0.9	25829 59.6
GRADE 12	9 0.0	26 5.0	7 1.3	106 20.3	8 1.5	1 0.2	17 3.3	161 30.8
GRADE 11	20 2.2	33 3.6	58 6.2	136 14.6	13 1.4		10 1.1	360 38.8
GRADE 10	152 10.1	64 4.2	77 5.1	273 18.1	34 2.3	8 0.5	144 9.5	705 46.7
GRADE 9	116 5.4	114 5.5	168 7.8	511 23.7	101 4.7	30 1.4	61 2.8	643 29.1
GRADE 8	72 3.3	100 4.6	79 3.6	425 19.4	57 2.6	7 0.3	6 0.2	1082 49.5
GRADE 7	140 6.4	133 6.3	135 6.4	531 25.1	137 6.5	25 1.2	11 0.5	1067 50.5
GRADE 6	110 4.5	459 17.9	286 11.1	1068 41.6	361 14.1	68 2.6	14 0.5	1689 65.8
GRADE 5	52 2.7	763 22.7	313 9.1	1630 47.2	353 10.2	47 1.4	19 0.6	2083 60.3
GRADE 4	29 1.0	749 20.4	368 9.4	1811 46.3	392 10.0	15 0.4	18 0.5	2433 62.2
GRADE 3	60 1.3	920 20.1	451 9.8	2070 44.3	491 10.4	10 0.2	7 0.1	2987 63.2
GRADE 2	80 1.5	867 15.7	449 8.2	2076 37.7	568 10.3	84 1.5	16 0.3	3855 70.0
GRADE 1	117 1.8	868 13.6	507 7.9	2392 37.4	610 9.5	46 0.7	28 0.4	4311 67.3
KINDER-GARTEN	90 1.9	589 12.7	462 9.9	1313 28.2	327 7.0	62 1.3	25 0.6	2728 58.6
PRE-K	1 0.2	21 4.7	65 14.5	7 1.6	11 2.4	9 2.0	6 1.3	370 82.4
OTHER	72 4.6	156 10.1	140 7.9	501 28.1	137 7.7	23 1.3		878 49.2

NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.

POPULATION GROUP = TOTAL HISPAN CAT 2

ROWS = GRADE

COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILINGUAL PROGRAM	SUBJECT INSTR	SPECIAL ENGLISH INSTR	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM
ALL GRADES	21847 100.0	1841 7.7	10353 43.4	2431 10.2	8866 37.1	9899 41.9	1707 7.2	1971 8.0	1415 5.9	1303 5.7
GRADE 12	183 100.0	26 14.2	18 9.8	82 44.8	102 55.7	97 53.0	13 7.1	65 35.5	64 35.0	70 38.3
GRADE 11	361 100.0	78 21.6	97 26.9	63 17.5	141 39.1	129 35.7	49 13.6	31 8.6	32 8.9	29 8.0
GRADE 10	1109 100.0	103 9.3	487 43.9	223 20.1	444 40.0	417 37.6	128 11.5	41 3.7	115 10.7	88 7.9
GRADE 9	1440 100.0	112 7.8	668 46.4	395 27.4	606 42.1	563 39.1	242 16.8	201 14.0	191 13.3	170 11.8
GRADE 8	1140 100.0	58 5.1	652 56.8	164 14.3	325 28.3	230 20.0	113 9.8	125 10.9	136 11.8	107 9.3
GRADE 7	1613 100.0	70 4.3	957 59.3	221 13.7	424 26.2	331 20.5	143 8.9	196 12.2	195 12.1	122 7.4
GRADE 6	1272 100.0	43 3.3	602 46.6	143 11.1	522 40.5	373 28.9	109 8.4	114 8.8	70 5.5	95 7.7
GRADE 5	1291 100.0	52 4.1	489 37.9	138 10.7	649 50.3	438 33.9	100 7.7	94 7.3	43 3.3	46 3.6
GRADE 4	1506 100.0	75 5.0	627 41.6	110 7.3	716 47.5	415 27.6	90 6.0	84 5.6	66 4.4	71 4.7
GRADE 3	1996 100.0	78 3.9	1035 51.9	118 5.9	652 32.7	387 19.4	103 5.2	105 5.3	88 4.4	88 4.4
GRADE 2	2284 100.0	95 4.2	1227 53.7	95 4.2	818 35.8	513 22.5	63 2.8	57 2.5	32 1.4	47 2.1
GRADE 1	3962 100.0	164 4.1	2135 53.9	170 4.3	1004 25.4	884 22.3	110 2.9	101 2.5	54 1.4	78 2.0
KINDER-GARTEN	1930 100.0	646 16.4	878 22.3	277 7.0	1581 40.2	729 18.5	211 5.4	172 4.4	173 4.4	162 4.1
PRE-K	549 100.0	58 10.6	70 12.8	35 6.4	105 19.1	61 11.1	35 6.4	25 4.3	13 2.4	13 2.4
OTHER	776 100.0	169 21.8	147 18.9	147 18.9	241 31.1	48 6.2	147 18.9	129 16.6	119 15.3	124 16.0

TABLE 3

(Continued)

	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OP CLA NAT LAN PROGRAM	SUPPORT SERVICE
ALL GRADES	884 3.7	2151 9.0	2112 8.8	4572 19.2	1800 7.5	440 1.8	411 1.7	17533 73.5
GRADE 12	2 1.1	1 0.5	4 2.2	18 9.8			64 29.5	80 43.7
GRADE 11	21 5.8	6 1.7	18 5.0	23 6.4	1 0.3		1 0.3	171 47.4
GRADE 10	21 4.6	21 1.9	46 4.1	61 5.5	5 0.5	12 1.1	19 1.7	775 69.9
GRADE 9	90 6.2	28 1.9	125 8.7	81 5.6	57 4.0	35 2.4	96 6.7	957 66.5
GRADE 8	44 3.6	12 1.0	94 8.2	58 5.1	104 9.1	34 3.0	28 2.4	864 75.3
GRADE 7	107 6.6	31 1.9	148 9.2	94 5.8	124 7.7	45 2.8	32 2.0	1243 77.1
GRADE 6	43 3.3	144 11.1	143 11.1	265 20.5	183 14.2	71 5.5	33 2.6	1009 78.1
GRADE 5	56 4.3	195 15.1	127 9.8	360 27.9	155 12.0	22 1.7	26 2.0	925 72.0
GRADE 4	46 2.7	215 14.3	121 8.0	462 30.7	145 9.6	13 0.9	39 2.6	1105 73.4
GRADE 3	89 4.5	202 10.1	140 7.0	453 22.7	130 6.5	9 0.5	11 0.6	1594 79.8
GRADE 2	36 1.6	295 12.9	170 7.4	550 24.1	176 7.7	24 1.1	7 0.3	1838 80.5
GRADE 1	55 1.4	449 11.3	296 7.5	928 23.4	335 8.5	51 1.3	8 0.2	3164 79.9
KINDER-GARTEN	103 2.6	460 11.7	530 13.5	965 24.6	302 7.7	74 1.9	21 0.5	2555 65.0
PRE-K	13 2.4	12 2.2	98 17.9	14 2.6	9 1.6	21 3.8	7 1.3	487 88.7
OTHER	111 14.3	79 10.2	51 6.6	197 25.4	58 7.5	16 2.1	2 0.3	440 56.7

participation in English as a Second Language (ESL) programs appears to be slightly overstated in the July 1 report, especially among those with severe English language difficulty. Table 11 in the first report shows 30 per cent of Category II Hispanic pupils receiving ESL instruction while Table 3 in the present report shows 24 per cent, the difference clearly due to the elimination of any possibility of double counting. The discrepancies are especially large in the high school grades, which indicates that the claim of the July 1 report (p. 27) that "over 50 per cent of high school students with severe difficulty participate in ESL programs" must be discounted. The true level is around 40 per cent.

Tables 1 through 3 of the present report provide two columns of summary material that did not appear in the July 1 tables. These are (1) the number and percentage of pupils receiving any sort of subject matter instruction in Spanish (that is, all those receiving Spanish language instruction in any of language arts, math, science, social studies, or fine arts); and (2) the number and percentage of pupils receiving any sort of specialized instruction designed to improve English language skills (that is, all those participating in any of the following: ESL programs, Comprehensive Reading programs, Comprehensive Reading programs with reinforcement in Spanish, Orientation Classes, or Orientation Classes conducted in Spanish). These two summary columns are the 4th and 5th columns of the tables.

These data indicate that pupils not participating in full bilingual programs are much more likely to receive specialized instruction in English language skills than to receive subject area instruction in Spanish. Nearly half of all pupils with English language difficulty receive some sort of specialized English language instruction, while fewer than 10 per cent are taught substantive material in Spanish. Not surprisingly, subject area instruction taught in Spanish is most common in the high school grades and least common in the elementary grades. Specialized English language instruction, by contrast, is relatively equally available throughout all grades, except pre-kindergarten where less than 20 per cent of Hispanic pupils with English language difficulty receive such services.

One difficulty we have in interpreting these figures is that they only include pupils who do not receive full bilingual instruction. Thus, they do not provide a good overall summary of the services available to pupils with English language difficulty. To see this, we turn to Table 4. This table gives (1) the percentage of pupils for whom Spanish is ever used as the medium of instruction (that is, the percentage who receive either full bilingual instruction or subject instruction in at least one of the five areas included in the questionnaire); and (2) the percentage of pupils receiving some specialized instruction designed to improve English language skills (that is, the percentage who

TABLE 4

SUMMARY OF REMEDIAL SERVICES AVAILABLE TO HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY, BY GRADE (PERCENTAGE RECEIVING SERVICES)

Grade	All pupils with difficulty (Cats. 1 + 2)		Pupils with moderate difficulty (Cat. 1)		Pupils with severe difficulty (Cat. 2)	
	Subject inst. in Spanish[a]	English language inst.[b]	Subject inst. in Spanish	English language inst.	Subject inst. in Spanish	English language inst.
All grades	39	74	31	71	53	80
12	32	53	24	48	55	66
11	32	58	27	55	44	66
10	52	78	42	74	64	84
9	50	70	33	58	74	88
8	50	69	38	60	71	85
7	54	73	39	63	73	86
6	42	79	34	76	58	87
5	33	82	28	80	49	88
4	34	83	29	81	49	89
3	37	79	28	77	58	85
2	42	83	35	81	58	90
1	42	83	32	79	58	89
Kinder.	25	60	21	58	28	62
Pre-K.	19	30	19	28	19	32

Sources: Tables 1-3

Notes:

[a] Percentage receiving either full bilingual program or instruction conducted in Spanish in any of the five areas assessed (see text for details).

[b] Percentage receiving either full bilingual program or instruction in any of the specialized programs designed to improve English language competence (see text for details).

receive either full bilingual instruction or one of the specialized programs included in the category "special English instruction").

Inspecting the figures in the table, we see that about 30 per cent of those with moderate difficulty and over half of those with severe difficulty receive some instruction in Spanish, either through a full bilingual program or through instruction in specific subject areas. There is not notable variation between grades in these percentages, except that subject area instruction is not nearly as common in kindergarten and pre-kindergarten classes, which may reflect the absence of subject area instruction in any language in these grades.

Turning to specialized instruction designed to improve English language skills, we see that it is available to about three quarters of all pupils (including 70 per cent of those with moderate difficulty and 80 per cent of those with severe difficulty), either through full bilingual programs or through specialized components such as ESL programs, Comprehensive Reading programs, etc. Once again, these services are widely available throughout almost all grades. However, they are available in a very limited way for pre-kindergarten pupils, and are less available in kindergarten and in the last years of high school (11th and 12th grades) than in other grades.

Mean hours of service. Tables 5 through 7 are similar to Tables 12 through 14 in the July 1 report, and the conclusions

TABLE 5
MEAN HOURS PER PROGRAM
FOR PARTICIPATING STUDENTS

POPULATION GROUP = TOTAL HISPAN 1 + 2

ROWS = GRADE COLUMNS = PROGRAMS

	HOURS IN ALL PROGS	BILIN-GUAL INSTR	SUBJECT INSTR	SPECIAL ENGLISH INSTR	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM
ALL GRADES	13.019 53460	14.057 20051	10.198 6169	7.632 30050	5.082 14695	4.791 4384	3.836 3869	3.131 3153	3.324 3313	2.949 2083	1.806 8199	6.606 5723	4.097 9548	4.499 5436	6.875 887	6.093 805
GRADE 12	11.960 423	13.945 55	9.831 172	7.676 318	6.306 232	4.014 73	5.011 90	4.800 65	4.649 111	4.600 5	6.852 26	4.636 11	4.677 174	5.000 8	3.000 1	5.000 71
GRADE 11	6.852 842	10.410 200	8.981 213	6.577 551	6.671 419	4.106 160	4.207 92	4.103 86	4.268 82	4.951 41	4.405 39	6.737 76	4.541 159	4.429 14		4.091 11
GRADE 10	12.957 2141	12.870 793	10.326 610	7.691 1306	6.404 1064	4.473 292	4.578 288	4.224 339	4.261 291	4.941 203	4.353 85	10.062 123	4.836 335	4.847 39	2.900 20	4.962 103
GRADE 9	14.513 2783	17.534 947	10.114 836	7.613 1570	7.856 1049	4.276 522	4.402 473	4.275 426	4.305 417	2.549 206	3.517 147	9.695 293	3.688 592	3.627 158	3.077 65	4.796 157
GRADE 8	17.693 2469	23.351 1297	12.729 417	7.582 1043	7.221 980	4.590 290	4.606 302	4.039 280	4.100 289	2.194 116	1.625 112	7.711 173	4.190 484	3.528 161	23.512 41	4.647 34
GRADE 7	18.637 2427	23.259 1539	13.037 446	7.674 1167	6.130 837	4.657 347	4.071 395	3.332 372	3.619 344	2.482 253	2.372 164	6.781 283	4.270 620	5.057 201	13.656 70	2.304 43
GRADE 6	14.608 3212	18.403 1147	12.143 469	8.678 1517	6.155 787	3.615 353	2.874 342	2.925 241	3.547 298	3.937 199	1.656 803	5.508 429	6.129 1333	4.719 544	7.129 137	1.447 47
GRADE 5	12.297 4034	16.420 1218	9.540 365	7.991 2088	4.923 1192	3.604 265	3.649 245	2.558 138	2.973 140	2.826 153	3.014 955	5.531 441	6.379 2012	4.324 519	7.966 69	12.400 45
GRADE 4	12.234 4744	17.795 1526	9.720 336	7.965 2904	4.314 1163	5.056 250	2.783 230	2.511 141	2.834 181	3.313 80	1.668 1014	5.038 489	6.674 2277	4.696 537	4.143 23	16.068 59
GRADE 3	12.659 5560	18.724 2088	9.532 387	7.955 3246	3.639 1320	5.407 295	2.455 242	2.402 141	2.910 133	3.472 150	1.487 1150	4.565 551	6.579 2549	4.505 623	2.632 19	3.056 19
GRADE 2	14.650 6079	20.928 2866	7.301 302	8.198 3622	3.852 1752	4.650 283	2.776 210	2.095 129	1.923 209	2.660 117	1.492 1164	5.969 619	7.076 2628	4.713 745	6.636 108	2.304 23
GRADE 1	14.950 6947	20.954 3896	9.335 463	8.204 4738	3.968 2460	5.541 373	2.918 280	1.706 204	1.771 268	2.227 172	1.461 1319	6.704 805	7.116 3321	5.393 947	2.768 99	2.654 38
KINDER-GARTEN	8.650 3748	13.256 1622	5.397 532	5.127 2548	3.892 1555	3.277 382	1.778 315	1.137 313	1.340 294	1.569 197	1.241 1053	6.250 990	4.113 2279	3.081 633	4.944 136	2.219 24
PRE-K	9.028 478	7.338 133	8.763 59	7.488 168	7.907 97	3.780 59	2.250 52	2.526 19	2.575 19	5.714 14	1.061 23	11.141 103	2.429 21	5.000 20	8.167 30	7.308 13
OTHER	13.053 1448	17.971 376	14.983 330	7.133 885	6.644 202	5.333 327	4.200 275	2.676 210	3.444 250	3.410 133	1.849 259	4.859 191	5.994 898	3.379 195	3.231 39	1.000 2

TABLE 6
MEAN HOURS PER PROGRAM
FOR PARTICIPATING STUDENTS

POPULATION GROUP = TOTAL HISPAN CAT 1

ROWS = GRADE COLUMNS = PROGRAMS

	HOURS IN ALL PROGS	BILING-UAL INSTR	SUBJECT INSTR	SPECIAL ENGLISH INSTR	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	CA CLS NOT CLN PROGRAM
ALL GRADES	12.109 32988	16.120 9604	9.546 3713	7.345 21132	4.714 8582	4.573 2663	3.613 2285	3.009 1721	3.251 1933	2.353 1187	1.768 6014	6.300 3604	6.134 14937	4.403 3622	5.152 445	4.645 356
GRADE 12	9.130 294	15.946 37	6.978 90	6.185 216	5.156 135	3.900 60	4.960 25	4.762 21	3.889 45	4.333 3	3.685 26	4.429 7	4.810 100	5.000 8	3.000 1	5.000 17
GRADE 11	9.664 542	13.252 103	8.493 150	6.188 416	6.231 250	4.261 111	4.549 51	4.259 54	4.350 93	5.200 20	4.333 33	7.276 56	4.420 130	4.385 13		4.000 10
GRADE 10	13.397 1135	14.811 259	11.855 380	7.350 854	6.297 640	4.646 158	4.307 24	4.628 215	4.525 200	4.914 152	4.281 64	14.779 77	5.038 273	4.706 34	2.750 8	4.625 144
GRADE 9	11.940 1469	15.673 276	10.454 441	6.447 564	7.449 486	4.211 230	4.270 272	4.140 235	4.170 247	2.284 116	3.555 119	11.069 166	3.973 511	3.853 101	2.287 30	4.807 61
GRADE 8	15.316 1438	22.706 589	12.344 253	6.519 717	7.511 350	4.655 177	4.559 177	4.009 144	4.150 182	1.472 72	1.700 100	8.203 79	4.031 425	3.719 57	14.000 7	3.807 6
GRADE 7	15.918 1483	23.460 582	13.131 245	6.673 742	5.444 306	4.[illegible] 204	3.824 199	3.051 177	3.[illegible] 192	2.404 146	2.556 133	10.505 135	4.358 531	6.190 137	4.000 25	2.091 11
GRADE 6	12.705 2043	17.391 545	9.752 326	7.760 1393	5.441 413	4.402 244	3.737 228	2.424 165	3.327 195	1.667 110	1.841 459	5.311 200	6.344 1068	4.017 361	4.691 69	1.286 14
GRADE 5	11.122 2084	15.092 721	9.667 222	7.025 2017	4.192 714	3.662 100	3.516 146	[illegible] 90	3.010 97	1.976 92	2.470 703	5.211 313	6.292 1810	4.152 459	7.593 47	10.[illegible] 15
GRADE 4	11.183 3335	16.912 398	8.182 225	7.540 2262	3.960 742	4.648 159	3.870 [illegible]	2.405 74	2.617 109	1.359 39	1.573 759	4.596 308	6.716 1811	4.395 392	4.667 15	5.000 18
GRADE 3	10.759 3691	16.308 1053	5.836 208	7.541 2588	3.603 932	4.120 191	3.566 130	1.962 52	2.477 44	1.350 60	1.525 556	4.306 491	6.642 2050	4.562 491	2.700 10	1.429 7
GRADE 2	13.425 4556	19.950 1633	7.143 266	8.082 2802	3.665 1427	4.470 219	2.667 152	1.979 96	1.888 101	1.407 80	1.458 867	5.066 449	7.158 2070	4.618 569	7.175 84	1.688 16
GRADE 1	13.351 5222	20.310 1757	10.337 291	7.594 3330	3.762 1573	5.746 260	4.192 177	1.593 150	2.224 128	2.111 117	1.454 868	7.716 507	7.207 2342	5.436 610	2.105 46	1.821 28
KINDER-GARTEN	7.793 3010	12.045 741	5.147 251	5.229 1960	4.000 864	3.520 171	1.867 143	1.029 130	1.206 128	1.344 90	1.221 585	4.518 402	4.109 1513	3.696 327	3.726 62	2.696 29
PRE-K	9.120 230	7.142 63	5.250 24	8.413 63	8.944 36	2.375 24	1.913 23	1.667 0	1.667 6	5.000 1	1.000 21	11.559 65	2.571 7	5.300 11	10.556 9	[illegible] 6
OTHER	11.907 949	16.319 229	12.235 183	7.595 644	7.714 154	4.306 180	4.473 146	2.786 91	3.548 126	2.167 72	1.844 188	4.950 140	6.206 501	3.810 137	3.261 23	

TABLE 7
MEAN HOURS PER PROGRAM
FOR PARTICIPATING STUDENTS

POPULATION GROUP = TOTAL HISPANIC CAT 2

ROWS = GRADE COLUMNS = PROGRAMS

	HOURS IN ALL PROGS	BILINGUAL INSTR	SUBJECT INSTR	SPECIAL ENGLISH INSTR	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFCR PROGRAM	COMP READING PROGRAM	READING REINFCR PROGRAM	ORIENT CLASSES PROGRAM	OR CLS NOT LSTD PROGRAM
ALL GRADES	16.039 20579	19.930 10352	11.197 2431	8.269 6660	5.648 5699	5.131 1707	3.719 1571	3.298 1462	3.384 1363	3.779 864	1.922 2151	7.547 2412	5.774 4572	4.522 1800	8.534 440	7.234 411
GRADE 12	16.538 126	4.833 18	12.963 82	10.833 102	7.907 57	4.538 13	5.091 69	4.813 64	5.129 70	5.000 2	4.000 1	5.000 4	3.778 18			5.000 54
GRADE 11	9.823 240	7.392 47	10.143 63	7.705 141	7.434 129	3.755 49	3.645 31	4.000 32	4.034 29	4.619 21	3.500 6	9.000 18	5.217 23	5.000 1		3.000 1
GRADE 10	12.474 441	11.479 487	7.803 223	8.369 444	7.528 317	4.305 128	4.512 41	3.946 119	3.705 68	5.020 51	4.571 21	7.652 46	4.066 61	6.200 5	3.300 12	5.000 15
GRADE 9	17.374 1313	18.286 668	9.734 395	5.405 606	8.213 563	4.351 242	4.572 201	4.440 191	4.500 170	2.889 90	3.357 28	7.360 125	3.778 81	3.579 57	3.771 35	4.917 96
GRADE 8	21.275 1014	23.738 652	13.323 164	5.548 325	6.778 230	4.487 113	4.672 125	4.007 106	4.112 107	2.477 44	1.000 12	7.296 94	5.448 58	3.423 104	25.471 34	4.857 28
GRADE 7	21.250 1443	23.131 957	14.199 221	5.439 424	6.764 331	4.755 143	4.321 196	3.602 175	4.053 152	2.585 107	1.581 31	5.047 148	3.798 94	3.806 124	19.067 45	2.275 32
GRADE 6	17.856 1176	19.315 602	17.594 143	11.128 523	6.946 373	8.330 109	4.149 114	4.013 78	3.990 99	10.116 43	1.903 144	5.902 143	5.245 265	6.104 182	9.465 71	1.515 33
GRADE 5	14.937 1146	18.446 486	9.029 138	8.578 649	5.064 428	5.490 100	3.108 94	2.635 83	2.691 46	2.857 56	5.375 144	6.203 127	6.014 383	4.819 155	8.909 22	5.216 26
GRADE 4	15.104 1407	19.094 627	12.819 110	9.275 716	4.842 419	5.769 90	3.595 84	2.636 66	2.845 71	5.275 40	2.015 215	6.003 121	6.524 462	5.372 145	3.538 13	19.857 34
GRADE 3	16.663 1795	21.142 1035	17.881 118	7.600 652	3.724 387	7.806 103	3.305 105	2.795 88	3.114 88	4.933 89	1.472 202	5.221 140	6.291 453	4.585 130	2.556 9	4.091 11
GRADE 2	17.234 2117	22.225 1227	7.937 95	8.594 818	4.446 513	5.270 63	2.228 57	2.438 52	2.043 47	3.361 36	1.557 245	6.241 170	6.771 550	5.034 176	4.708 24	3.714 7
GRADE 1	17.214 3657	21.486 2135	7.682 170	8.618 1404	4.288 884	5.086 116	2.495 101	2.019 54	1.564 78	2.473 55	1.359 445	10.267 296	6.689 928	5.260 335	2.490 51	3.875 8
KINDER-GARTEN	9.540 2768	14.272 678	5.657 277	5.008 1581	3.745 726	3.081 211	1.703 172	1.225 173	1.407 142	1.786 109	1.476 466	7.443 536	4.017 965	3.089 332	4.311 74	1.857 21
PRE-K	10.007 272	7.514 70	11.171 35	6.533 105	7.295 61	4.743 35	2.517 29	2.923 13	3.000 13	5.769 13	1.167 12	10.647 98	2.357 14	5.000 9	7.143 21	7.667 7
OTHER	15.365 489	20.544 147	18.419 147	5.888 241	3.208 48	6.592 147	3.891 129	2.975 119	3.329 124	4.216 111	1.861 79	4.608 91	5.457 197	2.392 58	3.188 16	1.000 2

to be drawn from the two sets of tables are exactly the same. There are no important differences between the two sets of figures, not even for ESL programs which, we showed above, were affected by the double count problem in the data used for the July 1 report.

These tables do, however, include three columns of summary data which were not included in the July 1 tables. The first column indicates the average number of hours per week of instruction in all programs combined received by Hispanic pupils with English language difficulty who receive any remedial instruction at all. Table 5 indicates that the average pupil received nearly 14 hours of instruction per week in these programs. The intensity of instruction varies relatively little by grade, although 7th and 8th graders appear to receive about four hours of instruction per week more than the average while pre-kindergarteners and kindergarteners receive about five hours less than average, which may reflect their short school week. As might be expected, pupils with severe difficulty have more intensive remedial experiences than those with only moderate difficulty, about four hours per week more on the average. But the grade by grade pattern is very similar for the two groups.

The two additional summary columns correspond to those discussed in conjunction with Tables 1 through 3. The third column of Tables 5 through 7 gives the average number of hours per week of instruction conducted in Spanish, for those pupils

who receive any instruction in Spanish. We see that the average pupil who receives instruction in one or more specific subjects in Spanish receives such instruction for about 10 hours per week. Furthermore, there is relatively little difference in the intensity of such programs for pupils with severe and moderate English language difficulty--only about an hour and a half per week. While there is some tendency for instruction of this kind to be most intensive (that is, conducted for the largest number of hours per week) in the intermediate grades, by and large the grade by grade differences are not large.

Specialized English language instruction, while provided for a larger proportion of pupils with English language difficulty than subject area instruction conducted in Spanish, does not occupy as many hours per week on the average. Such instruction is available seven or eight hours per week in most grades, both for pupils with severe difficulty and for pupils with moderate difficulty.

APPENDIX I

COMPARISON OF EDITED AND UNEDITED DATA

APPENDIX I

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As data from the survey were returned to the Board of Education, they were subjected to a routine computerized editing procedure (described in the July 1 report in Appendix I, pp. I.4-I.8) designed to locate logical inconsistencies and omissions, which would then be corrected by clerical staff at the Board of Education who would contact teachers to resolve any ambiguities. Because the edit check of the first set of data to be returned to the Board yielded a much larger number of cases to be corrected than had been anticipated, the decision was made to correct the data for the total population only up to column 39 of the questionnaire and to correct the remainder of the questionnaire only for a representative sample.

This decision was based on two consideration. First, it would make possible an estimate of the extent to which use of the unedited data on program services and personnel would yield biased or unreliable results. Second, if the unedited data proved to be too biased or unreliable, the edited sample could still be used to make estimates for each district of the number and percentage of pupils receiving various services and having contact with various Spanish speaking personnel.

Since the July 1 report was based on the unedited data for the total population (because the edited sample did not become available to us until June 29) it is important to ascertain how accurate those data are. Second, since only the population data can be used to prepare tabulations for individual

schools, we have a second reason for assessing the quality of these data. To determine what difference the editing process made, we compared the percentage of Hispanic pupils with English language difficulty who receive various program services, as estimated from the unedited and edited sample data.

Program services available to pupils with English language difficulty. Tables 1.1 and 1.2 show the percentage of Hispanic pupils in each grade with English language difficulty receiving various services. Table 1.1 is based on the edited sample data, and Table 1.2 is based on the unedited data.[1]

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[1]Two technical points regarding these data should be noted. First, because we lacked the time to do otherwise, the comparison is based on unweighted data, which means that the percentages could be biased to some degree. We would not expect the magnitude of any bias to be large, both because a relatively large fraction (22 per cent) of the entire population data were edited and because the nature of the sampling procedure happened to produce a sample which, even unweighted, is reasonably representative of the entire population, judging from a comparison of tabulations based on the sample and population data (c.f., the July 1 report, Appendix I, pp. I.6- .8).

Second, the unedited data contain about 2,000 cases more than the edited data. This is due to the elimination of duplications and improperly included cases in the course of the editing process. Since cases of this kind remain in the unedited data for the population, we considered it preferable to leave them in the sample used for comparison purposes in order to assess the effect that the editing process would have had on the population data.

TABLE 1.1
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.
(EDITED DATA)

POPULATION GROUP = TOTAL HISPAN 1 + 2

ROWS = GRADE

COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILINGUAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM	SOCIAL STUDIES PROGRAM
ALL GRADES	14539 100.0	2506 17.3	4874 33.5	2799 19.3	593 4.1	553 3.8	486 3.3	495 3.4
GRADE 12	19 100.0			2 10.5				
GRADE 11	7 100.0			4 57.1				
GRADE 10	56 100.0	3 5.4		52 92.9	7 12.5		3 5.4	3 5.4
GRADE 9	534 100.0	118 22.1	184 34.5	111 20.8	27 5.1	36 6.7	30 5.6	20 3.7
GRADE 8	1731 100.0	272 15.7	716 41.4	329 19.0	130 7.5	131 7.6	138 8.0	133 7.7
GRADE 7	1729 100.0	306 17.7	697 40.3	341 19.7	117 6.8	102 5.9	122 7.1	100 5.8
GRADE 6	765 100.0	145 19.0	217 28.4	190 24.8	93 12.2	66 8.6	46 6.0	59 7.7
GRADE 5	796 100.0	142 17.8	199 25.0	180 22.6	33 4.1	9 1.1	1 0.1	1 0.1
GRADE 4	565 100.0	185 19.2	295 30.6	139 14.4	6 0.6	24 2.5	22 2.3	22 2.3
GRADE 3	979 100.0	144 14.7	296 30.2	177 18.1	12 1.2	28 2.9	1 0.1	1 0.1
GRADE 2	1397 100.0	115 8.2	633 45.3	298 21.3	28 2.0	17 1.2	1 0.1	40 2.9
GRADE 1	1778 100.0	163 9.2	899 50.6	299 16.8	28 1.6	12 0.7	8 0.4	2 0.1
KINDER-GARTEN	3444 100.0	854 24.8	681 19.8	613 17.8	100 2.9	116 3.4	109 3.2	109 3.2
PRE-K	338 100.0	61 18.0	57 16.9	63 18.6	12 3.6	12 3.6	5 1.5	5 1.5

TABLE 1.1

(Continued)

FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM	SUPPORT SERVICE
228 1.6	1280 8.8	1247 8.6	3285 22.6	871 6.0	201 1.4	71 0.5	8958 61.6
			14 73.7				5 26.3
		4 57.1					7 100.0
10 17.9	14 25.0	20 35.7	6 10.7				47 83.9
13 2.4	19 3.6	36 6.7	79 14.8	5 0.9	26 4.9	2 0.4	28 52.6
52 3.0	45 2.6	109 6.3	232 13.4	92 5.3	13 0.8	4 0.2	1116 64.5
43 2.5	104 6.0	85 4.9	272 15.7	114 6.6	26 1.5	22 1.3	1069 61.8
21 2.7	74 9.7	117 15.3	189 24.7	131 17.1	17 2.2	23 3.7	443 57.9
29 3.6	96 12.1	36 4.5	219 27.5	18 2.3	6 0.8		454 57.0
2 0.2	106 11.0	73 7.6	332 34.4	51 5.3	5 0.5		499 51.7
4 0.4	133 13.6	103 10.5	340 34.7	71 7.3	6 0.6	2 0.2	649 66.3
1 0.1	188 13.5	129 9.2	409 29.3	115 8.2	2 0.1		1019 72.9
2 0.1	141 7.9	171 9.6	342 19.2	24 1.3	2 0.1	4 0.2	1311 73.7
51 1.5	348 10.1	328 9.5	845 24.5	236 6.9	94 2.7	5 0.1	1764 51.8
	12 3.6	36 10.7	6 1.8	14 4.1	4 1.2	4 1.2	274 81.1

TABLE 1.2
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.
(UNEDITED DATA)

POPULATION GROUP = TOTAL HISPAN 1 + 2

ROWS = GRADE COLUMNS = PER CENT AND NUMBER RECEIVING PROGRAMS

	TOTAL	BASIC PROGRAM ONLY	BILINGUAL PROGRAM	ESL PROGRAM	LANG ARTS PROGRAM	MATH PROGRAM	SCIENCE PROGRAM
ALL GRADES	16141 100.0	2291 14.2	6124 37.9	3031 18.8	820 5.1	749 4.6	624 3.9
GRADE 12	26 100.0	3 11.5		3 11.5			
GRADE 11	7 100.0	3 42.9		4 57.1			
GRADE 10	142 100.0	5 3.5	54 38.0	81 57.0	26 18.3	3 2.1	29 20.4
GRADE 9	673 100.0	138 20.5	188 27.9	179 26.6	42 6.2	83 12.3	74 11.0
GRADE 8	1740 100.0	308 17.7	740 42.5	287 16.5	157 9.1	133 7.6	138 7.9
GRADE 7	1837 100.0	295 16.1	776 42.2	375 20.4	149 8.1	138 7.5	158 8.6
GRADE 6	910 100.0	129 14.2	387 42.5	166 18.2	55 6.0	28 3.1	4 0.4
GRADE 5	1011 100.0	115 11.4	349 34.5	206 20.4	51 5.0	51 5.0	16 1.6
GRADE 4	1044 100.0	117 11.2	433 41.5	177 17.0	21 2.0	33 3.2	29 2.8
GRADE 3	1108 100.0	86 7.8	467 42.1	179 16.2	20 1.8	32 2.9	1 0.1
GRADE 2	1570 100.0	124 7.9	772 49.2	306 19.5	51 3.2	10 0.6	8 0.5
GRADE 1	2015 100.0	155 7.7	1049 52.1	340 16.9	66 3.3	70 3.5	23 1.1
KINDER-GARTEN	3654 100.0	759 20.8	806 22.1	678 18.6	150 4.1	153 4.2	136 3.7
PRE-K	404 100.0	54 13.4	103 25.5	50 12.4	30 7.4	15 3.7	8 2.0

TABLE 1.2

(Continued)

SOCIAL STUDIES PROGRAM	FINE ARTS PROGRAM	CULTURE STUDIES PROGRAM	SUBJECT REINFOR PROGRAM	COMP READING PROGRAM	READING REINFOR PROGRAM	ORIENT CLASSES PROGRAM	OR CLA NAT LAN PROGRAM	SUPPORT SERVICE
606	367	1483	1090	3417	1076	291	141	10290
3.8	2.3	9.2	6.8	21.2	6.7	1.8	0.9	63.8
		1		20				2
		3.8		76.9				7.7
			4					4
			57.1					57.1
12	10	14	20	6				124
8.5	7.0	9.9	14.1	4.2				87.3
65	16	25	79	102	51	50	20	334
9.7	2.4	3.7	11.7	15.2	7.6	7.4	3.0	49.6
134	74	48	95	245	72	13	4	1100
7.7	4.3	2.8	5.5	14.1	4.1	0.7	0.2	63.2
99	80	111	119	261	150	52	26	1118
5.4	4.4	6.0	6.5	14.2	8.2	2.8	1.4	60.9
17	6	91	89	200	105	17	1	554
1.9	0.7	10.0	9.8	22.0	11.5	1.9	0.1	60.9
16	43	127	16	244	65	6	14	643
1.6	4.3	12.6	1.6	24.1	6.4	0.6	1.4	63.6
29	4	139	41	332	66	7	2	638
2.8	0.4	13.3	3.9	31.8	6.3	0.7	0.2	61.1
1	4	139	73	370	100	7	3	790
0.1	0.4	12.5	6.6	33.4	9.0	0.6	0.3	71.3
33	8	133	127	419	125	2		1116
2.1	0.5	11.7	8.1	26.7	8.0	0.1		71.1
42	17	171	131	395	65	29	43	1515
2.1	0.8	8.5	6.5	19.6	3.2	1.4	2.1	75.2
146	102	417	259	817	258	104	24	2022
4.0	2.8	11.4	7.1	22.4	7.1	2.8	0.7	55.6
12	3	17	37	6	19	4	4	320
3.0	0.7	4.2	9.2	1.5	4.7	1.0	1.0	79.2

Here we have introduced a computational change (from the July 1 tables) which also appears in corresponding tables in the body of the present report. Because there appeared to be some tendency in the unedited data for pupils to be counted as receiving both full bilingual instruction and other individual programs, despite instructions not to record participation in individual programs for those pupils receiving full bilingual instruction, we adjusted the data by counting as participants in other programs only those pupils for whom no hours of full bilingual instruction were recorded. That is, pupils marked by their teachers as receiving both full bilingual programs and other instruction were counted only as receiving full bilingual programs. And only those pupils without full bilingual programs were counted in any other program.

Comparing Tables 1.1 and 1.2, we note that the editing process produced relatively little difference in the results. The general pattern of participation in various services remains essentially the same. However, there are some differences worth noting, especially for specific grades. Not surprisingly, considering the decision to treat all individuals listed as receiving full bilingual instruction as legitimate, the unedited data show a slightly higher percentage with full bilingual instruction than the edited data. Thus, in interpreting the data presented in the body of this report and the body of the July 1 report, it is probably wise to subtract about five per cent from the figures for full bilingual instruction. Similarly,

the edited data show a slightly larger percentage with no specialized program services at all, so the reported data must be taken as slightly overstating the extent of available program services. However, too much should not be made of these differences since they are relatively small and do not change the basic conclusions regarding extent of participation in specialized program services. This is especially so considering that no other program services seem much affected by the editing process.

Interestingly, virtually all the difference between the two samples with respect to receipt of any service and participation in full bilingual programs occurs in grades three through six. There does seem to be a fairly large overstatement in the unedited data of the level of participation in full bilingual programs in these grades, on the order of 10 per cent, and a corresponding (although not so large) understatement of the lack of any service at all. Why the discrepancy should exist in these grades in particular is not at all clear. On the other hand, there also seems to be a tendency for the unedited data to show lower levels of participation in ESL and Comprehensive Reading programs in these grades, although this pattern is not so consistent. Apparently, teachers in these grades tended rather more than other teachers to define improperly specific services for pupils with English language difficulty as full bilingual instructional programs.

Conclusions and consequences. On the basis of this analysis, we conclude that the unedited data for the entire

population can be used, but that they must be interpreted with caution. In particular, participation rates in full bilingual programs are best regarded as slightly lower (on the order of five per cent) than shown in the data. And the same is probably true of the percentage of pupils receiving service of any kind. Nonetheless, the conclusions one might draw from the data are hardly changed in any important way. Thus, the unedited data can be interpreted in full confidence that they accurately document the pattern of services and personnel available to Hispanic pupils with English speaking difficulty.

However, we need not rely entirely upon the unedited data. First, all data were edited up to column 39. Second, approximately 22 per cent of the cases for Hispanic pupils were edited in their entirety. The remaining 78 per cent of the cases contain unedited data on program and personnel services. In order to maximize the accuracy of the data we combined the edited sample data with the partially edited (up to column 39) data for the remainder of the population. All of the tables presented in this report, including all of the Appendix tables, are based on this combined data set, except for the tables presented here and in Appendix II for purposes of comparison.

Despite the relative confidence in the data expressed here on the basis of the above analysis, a caveat is in order. A large portion of the data are still unedited. Thus, anomalous results may occasionally appear, especially for individual districts and even more especially for individual schools. We

are unable to deal with this problem and simply caution any reader who wishes to draw conclusions about the state of affairs in particular districts or particular schools to entertain as one possibility that the data are in error.

APPENDIX II

RESULTS OF A CITYWIDE "VALIDITY CHECK" ON THE ACCURACY OF REPORTING PROGRAM SERVICES AVAILABLE TO PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

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RESULTS OF A CITY WIDE "VALIDITY CHECK" ON THE ACCURACY OF REPORTING PROGRAM SERVICES AVAILABLE TO PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

Because data on the percentage of pupils receiving various special services and on the number of hours of service received by pupils are the crux of the survey, and because concern has been expressed about whether teachers can accurately report such information, an independent check was carried out to determine the accuracy of teachers' reports. The design of this check is described in detail in the July 1 report (Appendix I, pp. I.8-I.10), so it need only be briefly reviewed here.

A representative sample of pupils included in the May survey was chosen for checking, consisting of about 1100 pupils in 80 schools. Staff from the Chancellor's Monitoring Task Force visited each of these schools and independently obtained information on the specialized services received by the pupils in the sample, principally by interviewing the teachers offering the services. The data thus obtained were turned over to us for analysis.

We matched the data obtained by the Monitors with data for the same pupils obtained from the teachers.[1] Then, for each of

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[1] In approximately 100 cases we were unable to match the two sets of data due to inconsistencies in the homeroom codes (e.g., "S" appearing in one set of data and "5" in the other set, or zero appearing in one set and the letter O in the other set). Due to limitations of time, we were unable to correct the inconsistent cases and thus omitted them.

the two data sets, we tabulated the number and percentage of pupils with English language difficulty who received various services, and also the mean hours of service received by participating pupils.

Consider first the percentage receiving services (Table 2.1). The figures from the two samples are strikingly similar, and confirm beyond all expectations the overall accuracy of the teachers' reports. It is clear that on the average the teacher neither over-reported nor under-reported the extent to which pupils receive remedial services.

The data on hours of service received provide an interesting, if limited, contrast (Table 2.2). The teachers tended to report more hours per week of program participation than did the Monitors, although the differences are hardly large. Our best guess is that some teachers confused class periods with hours (e.g., reporting one 40 minute period every day as 5 hours per week rather than as 3 1/3 hours per week), and that this accounts for the difference.

To summarize, these comparisons strongly confirm the accuracy of the data returned by the teachers in the May survey, and hence greatly increase the confidence we have in the results presented in the July 1 report and in the body of the present report.

TABLE 2.1

COMPARISON OF TEACHERS' AND MONITORS' REPORTS OF PERCENTAGE OF PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING VARIOUS PROGRAM SERVICES

Program Service	Percent receiving services	
	Teachers' reports[a]	Monitors' reports[a]
Basic program only	24	22
Full bilingual program	18	19
ESL program	26	26
Language arts program	5	3
Math program	6	4
Science program	5	4
Social studies program	5	3
Fine arts program	2	0[b]
Cultural studies program	13	7
Subject instruction w/reinforcement	6	5
Comprehensive reading program	34	30
Comprehensive reading w/reinforcement	7	4
Orientation class	1	0[b]
Orientation class in native language	1	0[b]
SAMPLE SIZE	1035	

[a] See text for explanation
[b] Less than .5%

TABLE 2.2

COMPARISON OF TEACHERS' AND MONITORS' REPORTS OF MEAN HOURS PER WEEK OF PROGRAM SERVICES RECEIVED BY PARTICIPATING PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

Program Service	Mean hours per week	
	Teachers' reports	Monitors' reports
Basic program only	11.5	9.1
Full bilingual program	17.2	16.2
ESL program	5.3	5.8
Language arts program	5.3	4.4
Math program	3.9	3.2
Science program	3.8	2.9
Social studies program	2.7	2.5
Fine arts program	2.4	2.0
Cultural studies program	3.1	1.7
Subject instruction w/reinforcement	8.4	7.6
Comprehensive reading program	6.5	4.5
Comprehensive reading w/reinforcement	4.3	4.0
Orientation class	8.0	5.0
Orientation class in native language	9.1	2.0

APPENDIX III

DISTRICT BY GRADE TABLES

(Bound separately)

APPENDIX IV

TABLES FOR INDIVIDUAL SCHOOLS WITHIN EACH DISTRICT

(Bound separately)